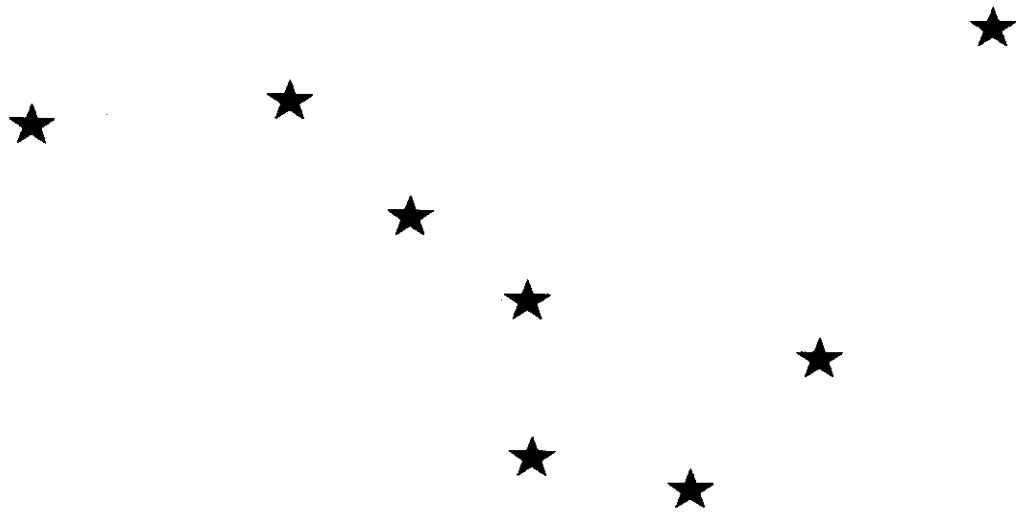
STATE OF ALASKA

ANNUAL FINANCIAL REPORT

PUBLIC EMPLOYEES' RETIREMENT FUND
TEACHERS' RETIREMENT FUND

For the Fiscal Year
July 1, 1988 - June 30, 1989



Prepared by
DEPARTMENT OF ADMINISTRATION
DIVISION OF RETIREMENT AND BENEFITS

NOTE: This publication is not a plan document. It is a compilation of the reports issued by Coopers & Lybrand; Mercer, Meidinger, Hansen, Inc. and the State of Alaska, Department of Revenue, Treasury Division as well as information gathered by the Division of Retirement and Benefits. References have been made in various sections that summarize the Public Employees' and Teachers' Retirement System plans but are not intended to fully describe the plan. Specific questions about either plan should be addressed by referring to the plan documents or calling the Division of Retirement and Benefits.

STEVE COWPER, GOVERNOR

DEPARTMENT OF ADMINISTRATION

OFFICE OF THE COMMISSIONER

P.O. BOX C
JUNEAU, ALASKA 99811-0200
PHONE: (907) 465-2200

December 18, 1989

The Honorable Steve Cowper
Governor of Alaska
P.O. Box A
Juneau, AK 99811

Dear Governor Cowper:

It is my pleasure to submit to you the Annual Report of the Alaska Public Employees' Retirement System (PERS) and Teachers' Retirement System (TRS).

This report shows the financial condition of both the PERS and TRS funds as of June 30, 1989. It has been prepared on the basis of standards set forth by the Governmental Accounting Standards Board and Financial Accounting Standards Board and is submitted in accordance with the requirements of Alaska Statutes 39.35.020(5) (PERS) and 14.25.030(4) (TRS).

Sincerely,

Frank S. Baxter, CPA
Commissioner

FSB/tz
19/6/AFR89GOV.PM3
Enclosure

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DEPARTMENT OF ADMINISTRATION
DIVISION OF RETIREMENT & BENEFITS
PLEASE REPLY TO:

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STEVE COWPER, GOVERNOR

December 18, 1989

Commissioner Frank S. Baxter
Department of Administration
P.O. Box C
Juneau, AK 99811-0200

Dear Commissioner Baxter:

The Annual Financial Report of the Public Employees' (PERS) and Teachers' (TRS) Retirement Systems is hereby submitted. The information presented in this report shows the results of operations and the financial condition of the two retirement funds for the fiscal year ending June 30, 1989. The financial statements in this report are presented on the accrual basis of accounting in accordance with the Financial Accounting Standards Board, Standard No. 35.

The report contains the financial statements, the audit report from the professional accounting firm of Coopers & Lybrand, excerpts from the most recent actuarial valuations prepared by the system's actuary, William M. Mercer Meidinger Hansen, Inc., and the fiscal year investment report from the Commissioner of Revenue, who is charged with the investment of the retirement funds. Also included is a statistical section with tables and graphs reflecting historical information for each system.

The June 30, 1989, net assets available for benefits were $2,452,961,063 for the PERS, an increase of 15.5 percent over the previous year; and $1,545,876,885 for the TRS, an increase of 14.0 percent over the previous year.

Additional information for the fiscal years ending June 30, 1987, through June 30, 1989, is provided in the following table:

	FY 1989		FY 1988		FY 1987	
	PERS	TRS	PERS	TRS	PERS	TRS
Number of participating employers (reporting entities)	135	61	123	63	117	62
Number of participating members	28,058	8,527	26,676	8,218	26,802	7,810
Number of retired members	6,967	3,098	6,702	2,972	5,668	2,401
Average Annual Retirement Benefit	$11,472	$21,708	$11,328	$21,240	$11,073	$19,716
Average Annual Retiree Medical Benefit	$2,743	$2,743	$1,683	$1,683	$1,980	$1,980

Note: Please Include Your Social Security Number In All Correspondence & Requests Concerning Your Benefits.

The PERS and TRS fall 1988 board meetings were held in Kodiak and Anchorage, respectively. The boards approved the annual actuarial valuations and employer contribution rates at the spring meetings in Juneau. The PERS Board also held special meetings to hear members' appeals in Anchorage on January 24-25 and June 29-30, 1989. The TRS Board held one special meeting in Juneau to conduct administrative business on May 18-19, 1989.

The following legislation affecting the retirement systems passed during the 1989 legislative session:

- Chapter 58, SLA 1989, added new provisions which allow:

  (1) PERS and TRS members to receive simultaneous PERS and TRS credit if they are concurrently employed at least half-time in both the PERS and the TRS; and

  (2) allow TRS members to receive PERS benefits for their service as elected public officials.

- Chapter 89, SLA 1989, established a Retirement Incentive Program (RIP) similar to one initially adopted in 1986. The RIP is designed to encourage eligible PERS and TRS members to voluntarily retire in order to reduce the cost of personal services and minimize the impact of workforce reductions.

- Chapter 104, SLA 1989, established an optional University of Alaska retirement plan to allow certain PERS and TRS members to participate in a defined contribution plan administered by the University instead of participating in either the PERS or the TRS.

A copy of this report will be mailed to all PERS and TRS employers. The cooperation of those employers is essential to the successful operation of the system.

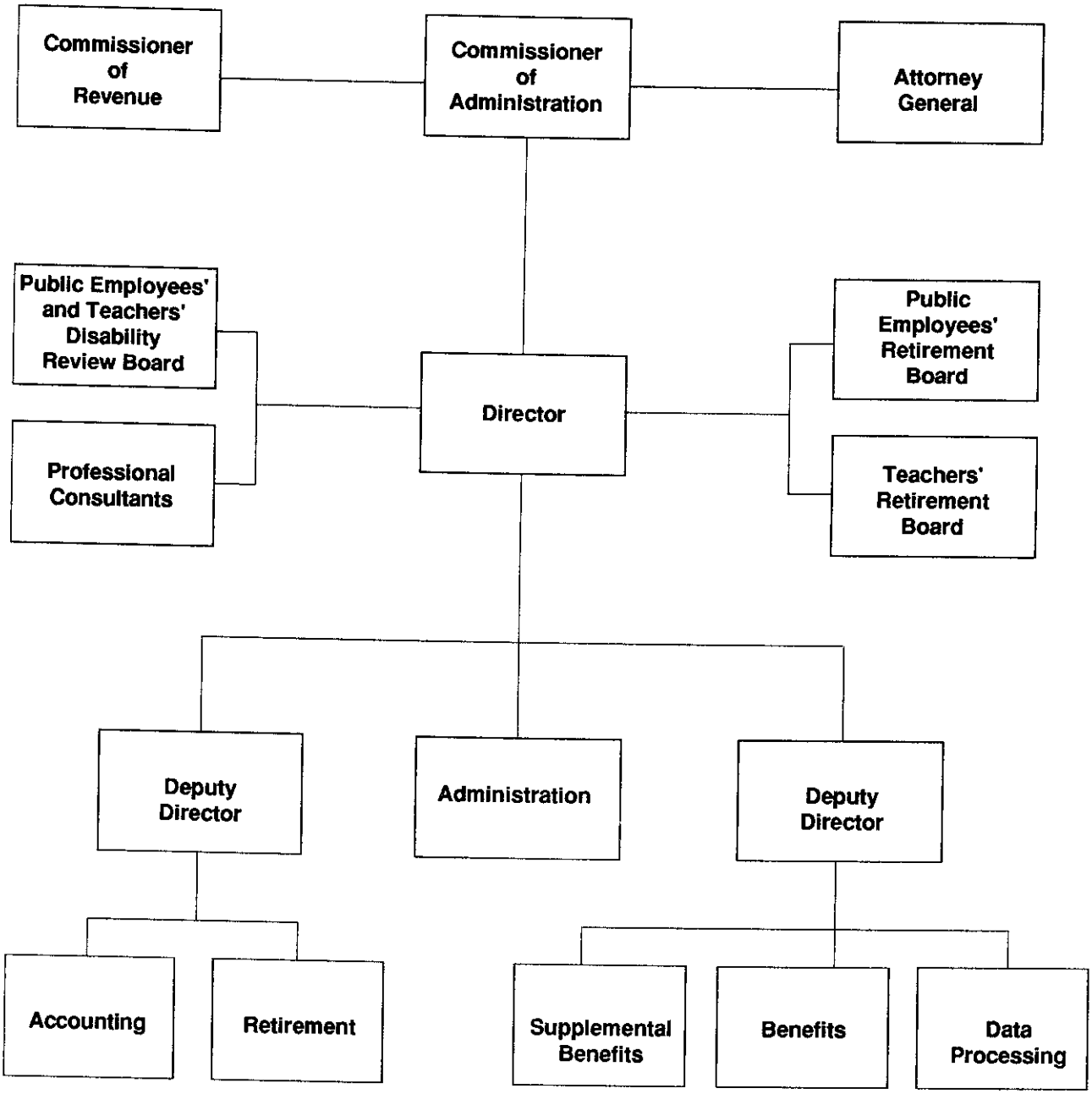
Sincerely,

Sally Smith

Sally Smith
Director

SS/JJW/tz
19/6/AFR89ILT.PM3/1-2
Enclosure

ORGANIZATIONAL CHART



ADMINISTRATIVE STAFF

Director	Sally Smith
Deputy Director	Robert Stalnaker
Deputy Director	Michael Coughlin
Administrative Supervisor	Monica Weyhe
Accounting Supervisor	Jerome Walkush
Retirement Supervisor	Dave Stout
Supplemental Benefits Supervisor	Mike Halverson
Benefits Supervisor	Janet Oldacres
Data Processing Supervisor	Pat Henry

PROFESSIONAL CONSULTANTS

Actuary	William M. Mercer Meidinger Hansen, Inc.
Assistant Attorney General	Virginia Ragle
Auditor	Coopers & Lybrand, CPA
Benefits Advisor	Touche Ross
Legal Advisor - Boards	Robert Johnson, Attorney
Insurance Carrier	Aetna Life Insurance Co.
Medical Advisor	Willard Andrews, M.D.

DISABILITY REVIEW BOARD

C. R. "Steve" Hafling, Chair, PERS Board
Charles Arteaga, Chair TRS Board
Keith Anderson, Director of Vocational Rehabilitation
Vernon Cates, M.D.
J. Michael James, M.D.

PUBLIC EMPLOYEES' RETIREMENT SYSTEM

PUBLIC EMPLOYEES' RETIREMENT BOARD

From left to right: Michael Andrews; Marlene A. Johnson; C.R. "Steve" Hafling, Chair; Mary A. Notar; James "Pat" Wellington, Vice-Chair.

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FINANCIAL SECTION

Coopers
&Lybrand

certified public accountants

Report of Independent Accountants

Division of Retirement and Benefits and
Members of the Alaska Public Employees'
Retirement Board
State of Alaska
Public Employees' Retirement System
Juneau, Alaska

We have audited the accompanying statement of net assets available for benefits of the State of Alaska Public Employees' Retirement System as of June 30, 1989, and the related statement of changes in net assets available for benefits for the year then ended. These financial statements are the responsibility of the management of the State of Alaska, Department of Administration, Division of Retirement and Benefits. Our responsibility is to express an opinion on these financial statements based on our audit. The financial statements of the State of Alaska Public Employees' Retirement System as of June 30, 1988 were audited by other auditors, whose report, dated September 12, 1988, expressed an unqualified opinion on those statements.

We conducted our audit in accordance with generally accepted auditing standards. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatements. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the 1989 financial statements referred to above present fairly, in all material respects, the net assets available for benefits as of June 30, 1989, and changes in net assets available for benefits for the year then ended, in conformity with generally accepted accounting principles.

The supplemental schedules of funding progress and revenues by source and expenses by type are not a required part of the basic financial statements of the State of Alaska Public Employees' Retirement System but are required by the Governmental Accounting Standards Board. We have applied certain limited procedures, which consisted principally of inquiries of management regarding the methods of measurement and presentation of the supplementary information. However, we did not audit this information and express no opinion on it.

Coopers + Lybrand

Anchorage, Alaska
September 10, 1989

STATE OF ALASKA
PUBLIC EMPLOYEES' RETIREMENT SYSTEM

STATEMENTS OF NET ASSETS AVAILABLE FOR BENEFITS

June 30, 1989 and 1988

($000)

Assets:	1989	1988
Investments, at fair value:		
Short-term investments	$ 20,100	$ 23,432
United States Government securities	1,059,796	874,896
Corporate bonds, notes, and debentures	269,548	225,931
Common stocks	665,998	556,880
Foreign stocks	148,654	138,421
Real estate equity funds	148,353	140,802
Total investments	2,312,449	1,960,362
Loans and mortgages, at cost, net of allowance for loan losses of $6,382 in 1989 and $5,515 in 1988	104,638	114,934
Receivables:		
Contributions	3,765	3,406
Retirement incentive program (Note 5)	6,618	19,602
Accrued interest and dividends	28,975	26,402
Total receivables	39,358	49,410
Cash in interest-bearing accounts	1,065	1,710
Total assets	2,457,510	2,126,416
Liability - accrued expenses	4,548	2,721
Net assets available for benefits	**$2,452,962**	**$2,123,695**

The accompanying notes are an integral part of the financial statements.

STATE OF ALASKA
PUBLIC EMPLOYEES' RETIREMENT SYSTEM

STATEMENTS OF CHANGES IN NET ASSETS AVAILABLE FOR BENEFITS

for the years ended June 30, 1989 and 1988

($000)

	1989	1988
Additions:		
Investment income:		
Net appreciation (depreciation) in fair value of investments (Note 2)	$ 108,088	$ (112,755)
Interest	123,088	113,606
Dividends	33,848	23,381
Net realized gains on sales	38,584	18,775
Total investment income before provision for losses on loans and mortgages	303,608	43,007
Provision for losses on loans and mortgages	867	1,294
Net investment income	302,741	41,713
Contributions:		
State of Alaska and other employers (Note 4)	78,932	75,072
Employees (Note 4)	65,104	65,331
Retirement incentive program (Note 5):		
State of Alaska and other employers		33,695
Employees		1,401
Total contributions	144,036	175,499
Total additions	446,777	217,212
Deductions:		
Benefits paid:		
Retirement	82,389	73,964
Medical	18,065	11,376
Total benefits paid	100,454	85,340
Refunds to terminated employees	11,188	11,409
Administrative expenses	5,868	6,964
Total deductions	117,510	103,713
Net increase	329,267	113,499
Net assets available for benefits:		
Beginning of year	2,123,695	2,010,196
End of year	**$2,452,962**	**$2,123,695**

The accompanying notes are an integral part of the financial statements.

STATE OF ALASKA
PUBLIC EMPLOYEES' RETIREMENT SYSTEM

NOTES TO FINANCIAL STATEMENTS

1. Description of State of Alaska Public Employees' Retirement System (Plan):

The following brief description of the Plan is provided for general information purposes only. Participants should refer to the Plan agreement for more complete information.

General

The Plan is the administrator of an agent multiple-employer public employee retirement system established and administered by the State of Alaska (State) to provide pension benefits for eligible State employees and employees of its local government. Benefit and contribution provisions are established by State law and may be amended only by the State Legislature. The Plan is considered a part of the State financial reporting entity and is included in the State's financial reports as a pension trust fund. At June 30, 1989, the number of participating local government employers were:

Municipalities	63
School districts	48
Other	21
Total employers	**132**

Inclusion in the Plan is a condition of employment for eligible State employees except, as otherwise provided, for elected officers. Any local government in the State may elect to have its permanent general, police, and fire department employees covered by the Plan. At June 30, 1988, Plan membership consisted of:

Retirees and beneficiaries currently receiving benefits and terminated employees entitled to future benefits	8,600
Current employees:	
General	24,349
Police and fire	2,327
Total	**35,276**

Continued

1. **Description of State of Alaska Public Employees' Retirement System (Plan), continued:**

General, continued

Current employees:	
Vested:	
General	12,191
Police and fire	1,505
Nonvested:	
General	12,158
Police and fire	822
Total	**26,676**

Pension Benefits

Employees hired prior to July 1, 1986 with five or more years of credited service, are entitled to annual pension benefits beginning at normal retirement age, fifty-five, or early retirement at age fifty. For employees hired after June 30, 1986, the normal and early retirement ages are sixty and fifty-five, respectively. The normal annual pension benefit is based on years of service and average compensation. The benefit related to all years of service earned prior to July 1, 1986, and for years of service through a total of 10 years, is equal to 2% of the participant's highest three-year average monthly compensation. The benefit for over 10 years of service subsequent to June 30, 1986 is equal to 2-1/4% of the member's highest three-year average monthly compensation for the second ten years and 2-1/2% for all remaining years of service. Employees with thirty or more years of credited service (twenty years for peace officers and firemen) may retire at any age and receive a normal benefit. Employees retiring prior to January 1, 1987 may elect to receive their pension benefits in the form of a joint and survivor annuity. Beginning January 1, 1987, new retirees must receive their benefits in the form of a joint and survivor annuity unless the member's spouse agrees to another form of benefit. Minimum benefits for employees eligible for retirement are $25 per month for each year of credited service. Major medical benefits are provided without cost to all members first hired before July 1, 1986. Members first hired after June 30, 1986 may elect major medical benefits.

Continued

1. **Description of State of Alaska Public Employees' Retirement System (Plan), continued:**

Death and Disability Benefits

If an active employee dies from occupational causes, the employee's spouse or dependent children receive a monthly pension from the Plan. The amount of the pension changes on the date the employee's normal retirement would have occurred if the employee had lived. The new benefit is based on the employee's average base salary at the time of his/her death and the credited service that would have occurred had the employee lived and continued to work until normal retirement date. Nonoccupational death benefits are paid based on years of service and consist of either a lump-sum benefit or a joint and survivor option.

Active employees who become permanently disabled due to an occupational injury receive disability payments until normal retirement age. At normal retirement age the disabled participants begin receiving normal retirement benefits computed as though they had been employed to normal retirement age with their annual compensation remaining the same as at the time they became disabled.

Effect of Plan Termination

Should the Plan terminate at some future time, its net assets generally will not be available on a pro rata basis to provide participants' benefits. Whether a particular participant's accumulated Plan benefits will be paid depends on the priority of those benefits at that time. Some benefits may be fully or partially provided for by the then existing assets while other benefits may not be provided for at all.

2. **Summary of Significant Accounting Policies:**

Basis of Accounting

The Plan's financial statements are prepared using the accrual basis of accounting.

Continued

2. Summary of Significant Accounting Policies, continued:

Valuation of Investments

Investments, other than real estate equity fund and loans and mortgages, are carried at market value to reflect their asset values as determined by the last quoted market price at June 30, 1989 and 1988.

Real estate equity funds are stated at estimated market value as determined by the independent management of the investment accounts. These investments do not have a readily available market and generally represent long-term investments.

Loans and mortgages are serviced by the institution from which the loan is purchased. The policy of the Plan is to hold these investments until maturity and, accordingly, the investments are stated at cost, less an allowance for estimated loan losses. Loans and mortgages include approximately $12,548,000 and $9,149,000 for 1989 and 1988, respectively, of other real estate owned. Other real estate owned represents properties on which the Plan has foreclosed and is holding with the intent to resell.

The investment activity of all common stocks was consolidated October 1, 1987, with the common stocks of other State funds to form a common stock pool. The activity from October 1, 1987, and the June 30, 1989 and 1988 balances of this common stock pool are accounted for on a unit-accounting basis. All income and realized and unrealized gains are allocated monthly to each participating fund on a pro-rata ownership basis. All income earned is included in dividend income. At June 30, 1989, the Plan's investment in the domestic equity pool is comprised of the following ($000):

Domestic equities	$590,370
Interest and dividends receivables	1,887
Cash and cash equivalents	73,741
	$665,998

Foreign stocks at June 30, 1989 are comprised of the following ($000):

Foreign equities	$134,561
Cash and cash equivalents	14,093
	$148,654

Continued

2. Summary of Significant Accounting Policies, continued:

Valuation of Investments, continued

The Commissioner of Revenue has the statutory authority to invest the monies of the Plan. This authority is delegated to investment officers of the Treasury Division of the Department of Revenue. Alaska Statute provides for the investment in United States Treasury or agency securities; corporate debt securities; preferred and common stock; commercial paper; securities of foreign governments, agencies and corporations; foreign time deposits; gold bullion; futures contracts for the purpose of hedging; real estate investment trusts; deposits within Alaska savings and loans and mutual savings banks; deposits with state and national banks in Alaska; guaranteed loans; notes collateralized by mortgages; certificates of deposit and banker's acceptances.

To provide an indication of the level of credit risk assumed by the Plan at June 30, 1989, the Plan's deposits and investments are categorized as follows:

Deposits

Category 1 - Insured or collateralized with securities held by the State or its custodian in the State's name.

Category 2 - Collateralized with securities held by the pledging financial institution's trust department or custodian in the State's name.

Category 3 - Uncollateralized.

Investments

Category 1 - Insured or registered for which the securities are held by the State or its custodian in the State's name.

Category 2 - Uninsured and unregistered investments for which the securities are held by the broker's or dealer's trust department or agent in the State's name.

Category 3 - Uninsured and unregistered investments for which the securities are held by the broker's or dealer's trust department or agent but not in the State's name.

Continued

2. Summary of Significant Accounting Policies, continued:

Investments, continued

	Category ($000)			Market Value
	#1	#2	#3	(Carrying Value)
Deposits - cash	$ 1,065			$ 1,065
Investments:				
Short-term investments	20,100			20,100
United States Government Securities	1,059,796			1,059,796
Corporate bonds, notes, and debentures	269,548			269,548
Common stocks	665,998			665,998
Foreign stocks		$148,654		148,654
Real estate equity funds	148,353		$0	148,353
	$2,164,860	**$148,654**	**$0**	**$2,313,514**

Short-term investments above consist of repurchase agreements totaling $18,600 and certificates of deposit totaling $1,500. Treasury investment policy requires that securities underlying the repurchase agreements must have a minimum market value of 102% of the cost of the repurchase agreement.

During 1989 and 1988, the Plan's investments (including investments bought, sold, as well as held during the year) appreciated (depreciated) in value as follows ($000):

	1989	1988
United States Government securities	$ 51,389	$ (9,588)
Corporate bonds, notes, and debentures	17,884	(5,268)
Common stocks	30,628	(63,422)
Foreign stocks	2,604	(35,028)
Real estate equity funds	5,583	551
	$108,088	**$(112,755)**

Continued

2. **Summary of Significant Accounting Policies, continued:**

Investments, continued

The cost, market, and carrying values of the investments at June 30, 1989 are as follows ($000):

	Cost	Market	Carrying Value
Short-term investments	$ 20,100	$ 20,100	$ 20,100
United States Government securities	970,156	1,059,796	1,059,796
Corporate bonds, notes, and debentures	254,649	269,548	269,548
Common stocks	815,859	665,998	665,998
Foreign stocks	142,255	148,654	148,654
Real estate equity funds	133,649	148,353	148,353
Loans and mortgages, net of allowance for loan losses of $6,382	104,638	111,740	104,638
	$2,441,306	**$2,424,189**	**$2,417,087**

Contributions Receivable

Contributions from employees and employers for service through June 30 are accrued. These contributions are considered fully collectible and, accordingly, no allowance for uncollectible receivables is considered necessary.

Accrued Interest and Dividends

Accrued interest and dividends represent amounts earned but not yet received as of June 30. These amounts are considered fully collectible and, accordingly, no allowance for uncollectible receivables is considered necessary. Accrued interest on loans and mortgages is not recorded until received.

3. Funding Status and Progress:

The amount shown below as "pension benefit obligation", which is the actuarial present value of credited projected benefits, is a standardized disclosure measure of the present value of pension benefits, adjusted for the effects of projected salary increases, estimated to be payable in the future as a result of employee service to date. This measure is intended to help users assess the Plan's funding status on a going-concern basis, assess progress made in accumulating sufficient assets to pay benefits when due, and make comparisons among plans. The measure is independent of the actuarial funding method used to determine contributions to the Plan, discussed in Note 4 below.

The pension benefit obligation is determined by William M. Mercer Meidinger Hansen Incorporated and is that amount that results from applying actuarial assumptions to adjust the accumulated benefits to reflect the time value of money (through discounts for interest) and the probability of payment (by means of decrements such as for death, disability, withdrawal, or retirement) between the valuation date and the expected date of payment. The significant actuarial assumptions used in the valuations as of June 30, 1988 are as follows:

a. Actuarial cost method - projected unit credit, unfunded accrued benefit liability amortized over twenty-five years, funding surplus amortized over five years.

b. Mortality basis - 1984 Unisex Pension Mortality Table set back one and one-half years.

c. Retirement age - retirement rates based on actual experience.

d. Interest rate - 9% per annum, compounded annually, net of investment expenses.

e. Health cost inflation - 9% per annum.

f. Salary scale - increase of 6.5% for the first five years of employment and 5.5% per year thereafter.

g. Cost of living allowance (domicile in Alaska) - 69% of those receiving benefits will be eligible to receive the cost of living allowance.

Continued

3. Funding Status and Progress, continued:

h. Contribution refunds - 100% of those terminating after age thirty-five with five or more years of service will leave their contributions and thereby retain their deferred vested benefit. All others who terminate are assumed to have their contributions refunded.

i. Asset valuation - three-year average ratio between market and book values of assets, except that fixed income investments are carried at book value. Valuation assets cannot be outside of the range of book and actuarial values.

Turnover and disability assumptions are based upon actual historical occurrence rates of the Plan. The foregoing actuarial assumptions are based on the presumption that the Plan will continue. Were the Plan to terminate, different actuarial assumptions and other factors might be applicable in determining the actuarial present value of accumulated benefits.

At June 30, 1988, the unfunded pension benefit obligation was $122.9 million, as follows ($ in millions):

Net assets available for benefits as of June 30, 1988, at market, as more fully described in Note 2	$2,123.7
Pension benefit obligation:	
Retirees and beneficiaries currently receiving benefits and terminated employees not yet receiving benefits	997.4
Current employees:	
Accumulated employee contributions including allocated investment income	305.5
Employer-financed vested	787.2
Employer-financed nonvested	156.5
Total pension benefit obligation as of June 30, 1988	2,246.6
Unfunded pension benefit obligation as of June 30, 1988	**$ 122.9**

Continued

4. Contributions:

Employees' Contributions

Prior to January 1, 1987, employees contributed 4-1/4% of their compensation, except for peace officers and firemen, who contributed 5% of their compensation to the Plan. Beginning January 1, 1987, contribution rates increased to 7.5% for peace officers and firemen and 6.75% for other employees. Present employees' accumulated contributions at June 30, 1989 were $326,950,000. Employees' contributions earn interest at the rate of 4-1/2% per annum, compounded semiannually. Contributions are collected by employers and remitted to the Plan.

Employers' Contributions

The Plan's funding policy provides for periodic employer contributions at actuarially determined rates that, expressed as percentages of annual covered payroll, are sufficient to accumulate sufficient assets to pay benefits when due. Employer contribution rates are level percentages of payroll and are determined using the projected unit credit actuarial funding method. The Plan also uses the level percentage of payroll method to amortize the unfunded liability over a twenty-five year period. Funding surpluses are amortized over five years.

Contributions made in accordance with actuarially determined contribution requirements determined through actuarial valuations consist of the following ($000):

	1989	1988
State and other:		
Employers	$ 78,932	$ 75,072
Employee	65,104	65,331
	$144,036	$140,403
Normal cost	$150,936	$146,859
Amortization of unfunded actuarial accrued liability (surplus)	(6,900)	(6,456)
	$144,036	**$140,403**

Actuarial valuations for 1989 and 1988 were performed as of June 30, 1988 and 1986, respectively.

Continued

4. Contributions, continued:

Employers' Contributions, continued

Significant actuarial assumptions used to compute contribution requirements are the same as those used to compute the standardized measure of the pension benefit obligation discussed in Note 3.

5. Retirement Incentive Program

Legislation passed in May 1986 established a retirement incentive program designed to encourage eligible employees to voluntarily retire in order to reduce personnel service costs. The program was available to eligible State employees until June 30, 1987, eligible University of Alaska employees from October 1, 1986 to September 30, 1987 and all other members from January 1, 1987 to December 31, 1987.

The retirement incentive program receivable represents the reimbursement due from agencies and employers participating in the program and is due in minimum equal annual installments so that the entire balance is paid within three years after the end of the fiscal year in which members retired. Interest on unpaid balances began accruing at 7%, compounded semiannually, August 31, 1988. The amount of reimbursement is the actuarial equivalent of the difference between the benefits the member receives after the addition of the retirement incentive under the program and the amount the member would have received without the incentive, less any amount the participant was indebted as part of retiring under the program. Participating peace officers or firemen were indebted 15% and all other members 12.75% of their annual compensation for the calendar year in which the member terminated employment to participate in the program. Any outstanding indebtedness at the time a participant was appointed to retirement resulted in an actuarial adjustment to his/her benefit.

The effect of the first retirement incentive program on the pension benefit obligation was fully accounted for in the June 30, 1988 actuarial valuation.

Legislation passed in June 1989 established a second retirement incentive program. The second program is available to members from September 30, 1989 through March 31, 1990. The terms and conditions of the second retirement incentive program are the same as the first program described above except that the percentages used to determine indebtedness to the Plan are as follows:

Police and fire members	22-1/2%
Other members	20-1/4%

6. Ten-year Historical Trend Information:

Ten-year historical trend information designed to provide information about the Plan's progress made in accumulating sufficient assets to pay benefits when due is presented on the accompanying supplemental schedules of analysis of funding progress and revenues by source and expense by type.

7. Contingent Liabilities:

The Plan was a party to an action contesting application of the early retirement factors adopted by the Plan in the calculation of the pension benefits due retirees. The Alaska Supreme Court ruled in 1987 that the Plan must use the most favorable early retirement factor available when a member begins receiving a monthly benefit. While the suit only specifically addressed early retirement factors, other actuarial retirement factors were also affected. As a result of the suit, the Plan estimates that the actuarial present value of the pension benefit obligation, as reported at June 30, 1988, will increase by approximately $35,000,000. A benefit recalculation project for affected retirees was completed in fiscal year 1989. Included in retirement benefits in the statement of changes in net assets available for benefits for the year ended June 30, 1989 is $6,330,000, in retroactive payments as a result of the recalculations.

STATE OF ALASKA
PUBLIC EMPLOYEES' RETIREMENT SYSTEM

REQUIRED SUPPLEMENTARY INFORMATION

ANALYSIS OF FUNDING PROGRESS

(Unaudited)

($000)

Year Ended June 30	Net Assets Available	Pension Benefit Obligation	Percentage Funded	Unfunded (Assets in Excess of) Pension Benefit Obligation	Annual Covered Payroll	Unfunded (Assets in Excess of) Pension Benefit Obligation as of Percentage of Covered Payroll
1985	$1,295,536	$1,446,672	89.6%	$ 151,136	$ 830,579	18.2%
1986	1,739,843	1,556,610	111.8	(183,233)	890,092	(20.6)
1987	2,010,196	1,905,005	105.5	(105,191)	891,302	(11.8)
1988	2,123,695	2,246,583	94.5	122,888	908,363	13.5

Analysis of the dollar amounts of net assets available for benefits, pension benefit obligation, and unfunded pension benefit obligation in isolation can be misleading. Expressing the net assets available for benefits as a percentage of the pension benefit obligation provides one indication of the Plan's funding status on a going-concern basis. Analysis of this percentage over time indicates whether the Plan is becoming financially stronger or weaker. Generally, the greater this percentage, the stronger the plan. Trends in unfunded pension benefit obligation and annual covered payroll are both affected by inflation. Expressing the unfunded pension benefit obligation as a percentage of annual covered payroll approximately adjusts for the effects of inflation and aids analysis of the Plan's progress made in accumulating sufficient assets to pay benefits when due. Generally, the smaller this percentage, the stronger the plan.

See notes to financial statements.

STATE OF ALASKA
PUBLIC EMPLOYEES' RETIREMENT SYSTEM

REQUIRED SUPPLEMENTARY INFORMATION

REVENUES BY SOURCE AND EXPENSES BY TYPE

(Unaudited)

($000)

Year Ended June 30	Revenues By Sources: Employee Contributions	Employer Contributions	Investment Income	Unrealized Appreciation (Depreciation) In Market Value	Total
1979	$ 17,631	$ 47,614	$ 25,389	$ 1,121	$ 91,755
1980	20,898	56,236	37,696	(4,990)	109,840
1981	24,321	71,833	50,633	(23,940)	122,847
1982	28,918	88,332	51,757	(16,725)	152,282
1983	32,595	99,727	86,002	53,099	271,423
1984	36,765	114,245	101,371	(74,541)	177,840
1985	39,577	123,466	112,261	117,733	393,037
1986	42,626	127,727	182,140	159,873	512,366
1987	51,879	103,719	225,792	(27,799)	353,591
1988	66,732	108,767	154,468	(112,755)	217,212

	Expenses By Type: Retirement Benefits	Medical Benefits	Refunds to Terminated Employees	Administrative Expenses	Total
1979	$ 13,249	$ 1,698	$ 4,979	$ 808	$ 20,734
1980	16,051	1,725	5,759	856	24,391
1981	19,710	3,094	7,802	1,292	31,898
1982	24,062	3,375	7,205	1,611	36,253
1983	28,401	4,541	7,683	2,342	42,967
1984	33,060	6,939	8,923	1,776	50,698
1985	39,487	9,350	9,553	3,813	62,203
1986	45,916	9,411	9,165	3,567	68,059
1987	57,473	10,256	10,524	4,985	83,238
1988	73,964	11,376	11,409	6,964	103,713

Contributions were made in accordance with actuarially determined contribution requirements.

See notes to financial statements.

STATE OF ALASKA
PUBLIC EMPLOYEES' RETIREMENT SYSTEM

NOTES TO REQUIRED SUPPLEMENTARY INFORMATION

(Unaudited)

All significant accounting policies, benefit provisions and actuarial assumptions are the same for the required supplementary information and the financial statements except as follows:

The Plan's actuarial funding method for the years ended June 30, 1979 through June 30, 1984, was attained age normal. Effective July 1, 1984 the Plan adopted the projected unit credit actuarial funding method.

Effective July 1, 1980, the Plan adopted new actuarial assumptions. The assumed rate of interest was increased from 6% to 8% per year. The salary scale assumption was changed from 6% per year until age thirty-nine and 5% per year thereafter to 8% for the first five years of employment and 7% thereafter. Health care cost inflation was set at 8%. Turnover and disability assumptions were revised based upon actual experience in 1980 through 1981.

Effective July 1, 1986, the Plan adopted new actuarial assumptions. Actuarial funding surpluses are amortized over five years rather than twenty-five years. The assumed rate of interest was increased from 8% to 9% per year. The salary scale assumption was lowered to 6.5% per year for the first five years of employment and 5.5% per year thereafter, down from 8% and 7%, respectively. Health care cost inflation was increased to 9% rather than 8%. Turnover and disability assumptions were revised based on actual experience in 1981 through 1985.

The Plan's actuarial valuations were performed as of January 1 for 1979 and 1980.

ACTUARIAL SECTION

HIGHLIGHTS

This report has been prepared by William M. Mercer Meidinger Hansen, Incorporated to:

(1) present the results of a valuation of the Alaska Public Employees' Retirement System as of June 30, 1988;

(2) review experience under the plan for the year ended June 30, 1988;

(3) determine the contribution rates for the State and for each political subdivision in the system;

(4) provide reporting and disclosure information for financial statements, governmental agencies, and other interested parties.

The report is divided into two sections. Section 1 describes the basis of the valuation. It summarizes the plan provisions, provides information relating to the plan participants, and describes the funding methods and actuarial assumptions used in determining liabilities and costs.

Section 2 contains the results of the valuation. It includes the experience of the plan during the 1987-88 plan year, the current annual costs, and reporting and disclosure information.

The principle results are as follows:

Funding Status as of June 30:	1987	1988
(a) Valuation Assets*	$1,898,253	$2,088,428
(b) Accrued Liability*	1,905,005	2,246,583
(c) Funding Ratio, (a) / (b)	99.6%	93.0%
Contributions for Fiscal Year:	**1990**	**1991**
(a) Consolidated Rate	9.23%	10.37%
(b) Average Past Service Rate	.07%	1.63%
(c) Average Total Contribution Rate	9.30%	12.00%

* In thousands.

In preparing this valuation, we have employed generally accepted actuarial methods and assumptions, in conjunction with employee data provided to us by the plan sponsor and financial information provided by Peat, Marwick, Main & Company, to determine a sound value for the plan liabilities. We believe that this value and the method suggested for funding it are in full compliance with the Governmental Accounting Standards Board, the Internal Revenue Code, and all applicable regulations.

Respectfully submitted,

Robert F. Richardson, ASA
Principal

Brian R. McGee, FSA
Principal

RFR/BRM/js

March 30, 1989

ANALYSIS OF THE VALUATION

The results of this year's actuarial valuation for the PERS show a decrease in the funding ratio, and a very large increase in the average employer contribution rate. These changes can be explained by the four major deviations of actual experience in FY 88 from our actuarial assumptions. Overall, there was an actuarial loss during the year of $178,121,000, or 7.9% of the accrued liability.

Retiree Medical Insurance

Last year there was an actuarial loss of $118,947,000 due to the large increase in retiree medical premiums. More importantly, from a cost point of view, this increase resulted in a 5.66% increase in the employer contribution rate.

An analysis of retiree medical claims for the past two years shows a **decrease** in hospital admissions and hospital days per retiree per year, for both under and over age 65. However, total hospital expenses per retiree during these two years increased 18% for retirees over age 65, and 36% for those under age 65.

For many years, we have commented on the substantial increases in retiree medical insurance premiums. The following table summarizes the monthly premium, per benefit recipient, since retiree medical became a benefit of the PERS.

Fiscal Year	Monthly Premium Per Retiree For Health Coverage	Annual Percentage Increase	Average Annual Increase Since 1978
1977	$ 34.75	--	--
1978	57.64	66%	--
1979	69.10	20%	20%
1980	64.70	- 6%	6%
1981	96.34	49%	19%
1982	96.34	0%	14%
1983	115.61	20%	15%
1984	156.07	35%	18%
1985	191.85	24%	19%
1986	168.25	-12%	14%
1987	165.00	- 2%	12%
1988	140.25	-15%	9%
1989	211.22	51%	13%
1990	252.83	20%	13%

In FY 86, the upward spiral of retiree health insurance premiums reversed. At the time it was felt that some of this decrease was due to the cost containment measures which were established and some was due to a correction from the prior year's increase. This downward trend continued in 1987 and 1988. Unfortunately, medical premiums for retirees have once again reversed with an 80% increase in the last two years.

Certainly some of this increase is due to the influx of retirees from the Retirement Incentive Program. While the initial cost of medical care for employees retiring under the RIP is being paid by employers, the 80% increase in premiums was not anticipated in the cost figures. The difference between current medical premiums and those used in the RIP cost figures increased the System's liabilities by $30,740,000.

Also, many of the new retirees are under age 65 with correspondingly higher medical costs. This is because Medicare offsets much of the medical cost after a retiree reaches age 65. During the next few years, the percentage of retirees over age 65 should increase, relieving some of the upward pressure on retiree medical premiums.

The chart on page 5 shows medical claims for pre-65 retirees increasing faster than claims for post-65 retirees. This may reflect the impact of DRG reimbursement holding down claims for retirees over age 65 and eligible for Medicare, and a "cost shift" toward retirees under age 65 and not eligible for Medicare.

Investment Performance

The effect of "Black Monday" on stock market prices was still felt by the equity portion of the PERS portfolio by the end of the fiscal year. Based upon the fund's market value, the investment return during the year was only 2.04%. Valuation assets are based upon a three-year smoothing of actuarial values. Nevertheless, investment return based upon valuation assets was only 6.12% during the year. The net result was an actuarial loss from investment sources of $55,684,000.

Retirement Incentive Program

Primarily due to the Retirement Incentive Program, the number of retirees in the Public Employees' Retirement System increased more than 44% during the last two years. Almost 7% of all active employees took advantage of the RIP and retired earlier with larger benefits.

The cost of the RIP is being paid by employers based on the actuarial value of the extra benefits, calculated individually for each employee who elected to retire under the Program. This cost is being paid over a three-year period. Based on historical averages, it was assumed in the RIP cost calculations that 69% of all retirees would reside in Alaska and receive the 10% C.O.L.A. In the first few years of retirement, a much higher percentage of retirees reside in Alaska. This means high liabilities for recent retirees, which decrease over time as retirees leave the State. This phenomenon resulted in additional liabilities this year associated with the RIP of approximately $3.3 million. This liability is expected to decrease as these RIP retirees leave the state. If the original assumptions are met, the total cost to the System is projected to equal the actuarial value paid by employers for the RIP.

Salary Increases

Somewhat offsetting the above-mentioned actuarial losses was an actuarial gain from salary increases which were less than anticipated. The actuarial gain from these less-than-anticipated salary increases was $18,488,000.

Summary

With a net actuarial loss of over $178,000,000 and a substantial increase in retiree medical insurance premiums, FY 88 was not a good year financially for the PERS. The funding ratio decreased and most employer contribution rates showed a large increase. Nevertheless, the Plan is very well funded by all standards, as indicated by the 93.0% funding ratio.

SUMMARY OF PLAN PROVISIONS

(1) Effective Date

January 1, 1961, with amendments through June 30, 1988. The Hammond vs. Hoffbeck Supreme Court decision, rendered in 1981, may have an effect on certain benefits for police/fire members hired before July 1, 1976. HB 252 may have a significant effect on certain benefits for members first hired prior to July 1, 1986.

(2) Administration of Plan

The Commissioner of Administration is responsible for administration of the System, the Public Employees' Retirement Board adopts rules and regulations to carry out provisions of the Act, and the Commissioner of Revenue invests the Fund. The Attorney General is the attorney for the System and represents it in legal proceedings.

(3) Employers Included

State of Alaska, and any political subdivision, and/or public organization who so elects to join the system.

(4) Employees Included

All permanent full-time or part-time employees of the State and participating political subdivisions, exclusive of those covered by the Alaska Teachers' Retirement System, the Alaska Judicial Retirement System, or any employee on whose behalf the State is making contributions to another retirement system. Elected officials may elect to participate at their option if they do not participate in the Elected Public Officers Retirement System.

(5) Service Considered

Future:

The later of hire, January 1, 1961, or date of employer's participation in the System, to date of termination, death, or retirement.

Up to five years of military service may be recognized if claimed, verified, and appropriate employee contribution paid.

Permanent part-time employees receive service credit on a pro-rata basis.

Past:

Service credit for employment with the State and Territory prior to January 1, 1961, if the employee completes three years of State employment after January 1, 1961, and is employed before January 1, 1980.

Service credit for employment as an elected official prior to January 1, 1981, if the elected official makes the required contributions.

Service credit for employment with the Alaska Bureau of Indian Affairs if the employee is not eligible for a benefit from the Civil Service Retirement System, makes the required contributions, and meets eligibility requirements under the law.

Service credit for temporary employment if the employee is vested. The cost for claiming temporary service is the full actuarial amount.

(6) Average Monthly Compensation

Total compensation during three consecutive payroll years of credited service which yield the highest average monthly compensation (total compensation during period divided by number of months included; a member must have a minimum of 115 days of credited service in the last of the three payroll years).

(7) Employer Contributions

Separate contribution rate for each employer equal to the sum of:

(a) Consolidated Rate

A uniform rate for all participating employers sufficient to amortize all future service liabilities (less value of employee contributions) over the future working lifetimes of the covered group.

(b) Past Service Rate

A rate determined separately for each employer sufficient to amortize such employer's unfunded past service liability with level payments over 25 years. Any funding surplus is amortized over five years.

(8) Employee Contributions

Mandatory Employee Contributions:	Police & Fire	-	7.50%
	Other	-	6.75%

Note: Prior to January 1, 1987, rates were 5.00% and 4.25%.

Interest Credited: 4.5% compounded semiannually on June 30 and December 31.

Refund at Termination (no vesting): Return of voluntary and mandatory contributions with interest and any indebtedness principal and interest payments.

Refund at Death: If no survivor's pension payable, return of voluntary and mandatory contributions with interest.

(9) Normal Retirement Benefit

Eligibility: The first of the month following the earlier of: age 60 (age 55 for members who participated before July 1, 1986) with five or more years of fully-paid credited service; or 20 years of fully-paid credited service - Police & Fire, or 30 years of fully-paid credited service - Other.

Type: Life only, level income, or optional joint and survivor benefit (actuarially reduced).

Amount:

Others: 2% of Average Monthly Compensation for the first ten years of service, 2.25% for the next ten years, and 2.5% for all remaining years. Service before July 1, 1986 is credited at 2%.

Police & Fire: 2% of Average Monthly Compensation for the first ten years of service plus 2.5% for years of service in excess of ten.

Minimum Benefit: $25.00 per month for each year of credited service.

(10) Early Retirement Benefit

Eligibility: Age 55 (age 50 for members who participated before July 1, 1986) and five or more years of fully-paid credited service - all employees.

Type: Life only, level income, or optional joint and survivor benefit (actuarially reduced).

Amount: Actuarial equivalent of Normal Retirement Benefit based on service and compensation to Early Retirement Date.

(11) Deferred Vested Benefit

Eligibility: Five or more years of credited service, withdrawal of employee contributions voids vested rights.

Type: Life only, level income, or joint and survivor benefit (actuarially reduced).

Amount: Monthly benefit begins on employee's Normal Retirement Date. Amount determined the same as Normal Retirement Benefit taking into account compensation and service prior to termination.

(12) Disability Benefit

Occupational Disability:

Eligibility: No age or service requirements.

Type: Monthly benefit payable until death, recovery, or normal retirement.

Amount: 40% of gross monthly compensation (66-2/3% for police/fire members who participated before July 1, 1976, offset by any workers compensation) at date of disability. The benefit terminates upon attaining Normal Retirement eligibility, with Normal Retirement Benefits commencing at that time. The period of time on occupational disability is time credited toward Normal Retirement Benefits.

Non-Occupational Disability:

Eligibility: Five or more years of credited service.

Type: Monthly benefit payable until death, recovery, or normal retirement.

Amount: Same formula used for Normal Retirement Benefits. The benefit terminates upon attaining Normal Retirement eligibility, with Normal Retirement Benefits commencing at that time. The period of time on non-occupational disability is not credited toward Normal Retirement Benefits.

(13) Death Benefit Before Retirement

Occupational: No age or service requirements.

Benefit: 40% (66-2/3% for police/fire members who participated before July 1, 1976) of gross monthly compensation at date of death or disability, if earlier. At the member's Normal Retirement Date, the benefit converts to a normal retirement benefit based on pay at date of disability or death and credited service, including period from date of disability or death to Normal Retirement Date.

Non-Occupational: With less than one year of credited service, the death benefit is the participant's contributions with interest. With more than one but less than five years of credited service, the death benefit is a lump-sum of $1,000 plus $100 for each completed year of credited service and the participant's contributions with interest. Alternatively, a retirement benefit to the spouse is available at death of the member after five years of credited service, based on a 50% Joint and Survivor equivalent of the accrued Normal Retirement Benefit.

(14) Death Benefits After Retirement

The employee's beneficiary receives a lump sum equal to the excess of his contribution account immediately prior to retirement over the sum of the pension payments previously received by the employee. However, if the employee elected one of the joint and survivor options (50%, 66-2/3% or 75%) at retirement, an eligible spouse would receive a continuing monthly benefit for the rest of his or her life.

(15) Post-Retirement Pension Adjustment

Post-Retirement pension Adjustment will be made each year based upon the increase in CPI for the prior year. The increase in the total current benefit, excluding the Cost-of-Living Allowance (COLA), will be:

(1) 75% of the CPI increase (not to exceed 9%) for recipients who are at least age 65 or on PERS disability; or

(2) 50% of the CPI increase (not to exceed 6%) for recipients who are at least age 60 but under 65, and for recipients who have been receiving benefits for at least five years but are under age 60.

(There are ad hoc PRPA's up to 4% for those hired before July 1, 1986).

(16) Cost-of-Living Allowance

Starting at age 65, a retired employee who remains in Alaska is eligible for an additional allowance, equal to 10% of the base retirement benefit, or $50 per month, whichever is greater (COLA for those hired before July 1, 1986, regardless of age).

(17) Optional Employee Savings Account

An employee can voluntarily contribute up to 5% of his compensation. This amount is recorded in a separate account and is payable:

(a) In the event of termination before retirement for any reason other than death, as a lump sum to the employee,

(b) In the event of termination on account of death, as a lump sum to the employee's beneficiary,

(c) On retirement, as a lump sum, life annuity on cash refund basis or installments over limited period.

PARTICIPANT CENSUS INFORMATION

TOTAL PERS AS OF JUNE 30	1984	1985	1986	1987	1988
Active Members					
(1) Number	25,803	27,183	27,643	26,762	26,676
(2) Average Age	38.39	38.65	39.21	39.53	39.67
(3) Average Credited Service	5.31	5.51	5.96	6.32	6.45
(4) Average Annual Salary	$30,317	$30,555	$32,200	$33,305	$34,052
Retirees and Beneficiaries					
(1) Number	3,859	4,317	4,657	5,651	6,702
(2) Average Age	63.80	63.82	64.05	60.39	62.82
(3) Average Monthly Benefit					
Base	$ 625	$ 656	$ 674	$ 753	$ 791
C.O.L.A.	51	54	55	62	64
P.R.P.A.	74	126	110	110	90
TOTAL	750	836	839	925	945
Vested Terminations					
(1) Number	1,333	1,525	1,766	1,921	1,898
(2) Average Age	45.74	45.85	45.50	45.33	42.77
(3) Average Monthly Benefit	$ 368	$ 397	$ 419	$ 425	$ 504
Non-Vested Terminations With Account Balances					
(1) Number	7,849	7,945	8,155	3,965	3,101
(2) Average Account Balance	$ 426	$ 471	$ 544	$ 1,114	$ 2,100

ACTIVE MEMBERS BY TYPE OF STATUS AS OF JUNE 30

		1984	1985	1986	1987	1988
Active Police & Fire						
(1)	Number	2,366	2,407	2,371	2,319	2,327
(2)	Average Age	36.24	36.78	37.54	37.86	38.35
(3)	Average Credited Service	6.79	7.19	7.88	8.05	8.16
(4)	Average Annual Salary	$37,666	$38,380	$42,825	$43,484	$43,947
(5)	Number Vested	1,206	1,260	1,359	1,433	1,505
(6)	Percent Who Are Vested	51.0%	52.3%	57.3%	61.8%	64.7%
Active "Other" Members						
(1)	Number	23,437	24,776	25,272	24,443	24,349
(2)	Average Age	38.61	38.83	39.37	39.69	39.80
(3)	Average Credited Service	5.16	5.35	5.78	6.16	6.29
(4)	Average Annual Salary	$29,575	$29,795	$31,203	$32,339	$33,106
(5)	Number Vested	9,770	10,822	10,964	11,664	12,191
(6)	Percent Who Are Vested	41.7%	43.7%	43.4	47.7%	50.1%

STATISTICS ON ALL RETIREES AS OF JUNE 30, 1988

	Police & Fire	"Other"
Normal Retirement		
Number, June 30, 1987	264	4,952
Net Change During FY88	64	892
Number, June 30, 1988	328	5,844
Average Age At Retirement	50.17	58.14
Average Age Now	54.87	63.90
Average Monthly Benefit	$2,174.25	$ 893.92
Surviving Spouse's Benefits		
Number, June 30, 1987	11	280
Net Change During FY 88	0	62
Number, June 30, 1988	11	342
Average Age At Retirement	47.05	52.33
Average Age Now	54.50	60.33
Average Monthly Benefit	$ 801.25	$ 498.58
Survivor's Benefits		
Number, June 30, 1987	14	21
Net Change During FY88	0	0
Number, June 30, 1988	14	21
Average Age At Retirement	27.93	42.30
Average Age Now	38.62	56.39
Average Monthly Benefit	$1,596.00	$ 839.33
Disabilities		
Number, June 30, 1987	26	83
Net Change During FY88	8	25
Number, June 30, 1988	34	108
Average Age At Retirement	39.52	43.30
Average Age Now	44.78	47.23
Average Monthly Benefit	$1,734.25	$1,034.25
Total Number of Retirees	**387**	**6,315**

ACTUARIAL BASIS

Valuation of Liabilities

A. Actuarial Method - Projected Unit Credit. Liabilities and contributions shown in the report are computed using the Projected Unit Credit method of funding. The unfunded accrued benefit liability is amortized over 25 years. Actuarial funding surpluses are amortized over five years.

The objective under this method is to fund each participant's benefits under the plan as they accrue. Thus, each participant's total pension projected to retirement with salary scale is broken down into units, each associated with a year of past or future service. The principle underlying the method is that each unit is funded in the year for which it is credited. Typically, when the method is introduced there will be an initial liability for benefits credited for service prior to that date, and to the extent that this liability is not covered by Assets of the Plan there is an Unfunded Liability to be funded over a chosen period in accordance with an amortization schedule.

An **Accrued Liability** is calculated at the valuation date as the present value of benefits credited with respect to service to that date.

The **Unfunded Liability** at the valuation date is the excess of the Accrued Liability over the Assets of the Plan. The level annual payment to be made over a stipulated number of years to amortize the Unfunded Liability is the **Past Service Cost.**

The **Normal Cost** is the present value of those benefits which are expected to be credited with respect to service during the year beginning on the valuation date.

Under this method, differences between the actual experience and that assumed in the determination of costs and liabilities will emerge as adjustments in the Unfunded Liability, subject to amortization.

B. Actuarial Assumptions -

1. Interest	9% per year, compounded annually, net of expenses.
2. Salary Scale	6.5% per year for the first five years of employment and 5.5% per year thereafter.
3. Health Cost Inflation	9% per year.
4. Mortality	1984 Unisex Pension Mortality Table set back 1-1/2 years.
5. Turnover	Based upon the 1981-85 actual total turnover experience. (See Table 1).

6.	Disability	Incidence rates in accordance with Table 2. Post-disability mortality in accordance with rates published by the Pension Benefit Guaranty Corporation to reflect mortality of those receiving disability benefits under Social Security. Disabilities are assumed to be occupational 85% of the time for Police/Fire, 35% for "Others".
7.	Retirement Age	Retirement rates based on actual experience in accordance with Table 3.
8.	Spouse's Age	Wives are assumed to be four years younger than husbands.
9.	Contribution Refunds	100% of those terminating after age 35 with five or more years of service will leave their contributions in the fund and thereby retain their deferred vested benefit. All others who terminate are assumed to have their contributions refunded.
10.	C.O.L.A.	69% of those receiving retirement benefits at an age which is eligible for C.O.L.A., will receive C.O.L.A.
11.	Expenses	Expenses are covered in the interest assumption.

Valuation of Assets

Based upon the three-year average ratio between market and book values of the System's assets, except that fixed income investments are carried at book value. Assets are accounted for on an accrued basis. Valuation assets cannot be outside the range of book and actuarial values.

Valuation of Medical Benefits

Medical benefits for retirees are provided by the payment of premiums from the fund. A pre-65 cost and lower post-65 cost (due to Medicare) were assumed such that the total rate for all retirees equals the present premium rate. These medical premiums are then increased with the health inflation assumption. The actuarial cost method used for funding retirement benefits is also used to fund health benefits.

For FY 89, the pre-65 monthly premium is $267.43 and the post-65 premium is $76.37, based on a total blended premium of $211.22.

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INVESTMENT SECTION

STEVE COWPER, GOVERNOR

DEPARTMENT OF REVENUE

OFFICE OF THE COMMISSIONER

P.O. BOX S
JUNEAU, ALASKA 99811-0400
PHONE: (907) 465-2300
TELEFAX: (907) 465-2389

December 1, 1989

To the Participating Employees and Employers of
The Alaska Public Employees' Retirement System

Dear Members:

I am pleased to provide to you the Public Employees' Retirement Trust Fund 1989 Investment Report.

The report describes the nature, management, and investment policy of the fund and presents the investment results for the fiscal year ending June 30, 1989 and the preceding four fiscal years. The report is included in the Annual Report of the Alaska Public Employees' Retirement System and Teachers' Retirement System published by the Department of Administration pursuant to Alaska Statutes 39.35.020(5) and 14.25.030(4).

Sincerely,

Hugh Malone
Commissioner

HM/MB/mem

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PUBLIC EMPLOYEES' RETIREMENT TRUST FUND
1989 Investment Report

Creation, Purpose, and Nature of the Fund

The Public Employees' Retirement Trust Fund is established by Alaska Statutes 39.35.020(6). The fund holds the assets of the Public Employees' Retirement System. These assets are comprised of investments of various kinds, including stocks, bonds, and real estate. The fund was created as a means of paying retirement and other benefits to employees participating in the retirement plan administered under the Public Employees' Retirement System. The retirement plan is a defined benefit plan in which benefit levels are determined by length of employment and highest average salary of each employee. The plan is a joint-contributory plan in which both employee and employer make continuing contributions, calculated as a percentage of current salary. Employee contribution percentages are fixed by statute. Employer contributions are determined by annual evaluations of the fund by a consulting actuary. The plan is considered to be perpetual because it applies to future as well as current employees and because the employers (state and municipal governments or political subdivisions) are perpetual in nature.

The assets of the fund came into being and have grown because employers and employees have paid more into the fund in the form of contributions than has been paid out in benefits. Investment returns have further increased the fund's assets. Contributions currently exceed benefits by design, in order to be able to make the benefit payments that can reasonably be expected in the future. These projections of future benefit payments are one of the main factors estimated by the actuary in determining employer contribution rates. The other main factors are the amount of assets in the fund and the expected future returns on investments. Future benefits will be much larger than benefits paid today because of past and future growth in the number of employees, in their salaries, and in health care costs for retirees.

Participating employers are bound by the Alaska Constitution to pay the plan's benefits. Although benefits could be paid on a pay-as-you-go basis, the existence of a fund serves two purposes. For the employer, it smooths out over time the burden of paying these benefits, just like mortgage payments smooth out the burden of buying a house. For the employee, it provides insurance that employers will meet their obligations.

Trust Stature of the Fund

It is this insurance function which has caused the fund to be designated by Alaska law as a trust fund. Under common law, a trust fund is a fund which can only be used in the interests of persons designated by the creator of the fund as beneficiaries. Of course, in the case of the Public Employees' Retirement Trust Fund, the beneficiaries are the employees, and have been so designated by the State in the laws creating the fund.

As a trust fund, it would be legally suspect for the State, or a municipal employer for that matter, to withdraw money from the fund to use for purposes other than paying benefits. Even underfunding or deferring of an employer's contributions would be questionable, based on Article II, Section 7 of the Alaska Constitution. This constitutional provision places a contractual obligation on employers to pay these benefits.

Perhaps most telling in regards to this obligation is the Alaska Supreme Court's decision in Hammond vs. Hoffbeck. This decision limits public employers' ability to diminish even benefits that could be, but have not yet been earned, by an existing employee. The Hammond vs. Hoffbeck decision is also based on Article II, Section 7 of the Alaska Constitution. This section reads:

> "Membership in employee retirement systems of the State or its political subdivisions shall constitute a contractual relationship. Accrued benefits of these systems shall not be diminished or impaired."

Another reason for establishing and maintaining the fund as a trust is provided by the IRS. The federal tax code allows employee contributions to such funds and the earnings of such funds to be exempt from federal income taxes only if the fund is a trust "for the exclusive benefit" of employees. This actually amounts to a deferral of taxes since retirees are taxed on retirement benefit payments they may ultimately receive.

Thus, the Public Employees' Retirement Trust Fund is a fund that must be managed solely with the employee in mind. A strong array of provisions in the Alaska Constitution, common law, Alaska Statutes, and federal tax code places the force of law behind this obligation.

Management of the Fund

Alaska Statutes 39.35.080 designates the Commissioner of Revenue as the treasurer of the system and the fiduciary of the fund. As the sole fiduciary, the Commissioner is solely responsible and accountable for the investment of the fund.

The fiduciary for a trust fund, also known as a trustee, is subject to two principal duties under common law -- a duty of prudence and a duty of loyalty. The duty of prudence requires the trustee to exercise a degree of care in managing investments that would be used by a person of ordinary prudence in managing their own investments. The duty of loyalty requires the trustee to act only in the best interests of the beneficiaries. Alaska law has reformulated these duties to higher and more demanding standards and made them specifically applicable to the Public Employees' Retirement Trust Fund. These statutory standards require the fiduciary to exercise the standard of care required of a professional institutional investor managing large investments under a trust relationship and to act only in the best financial interests of the beneficiaries.

The importance of observing these fiduciary duties is underscored by Alaska Statutes holding the Commissioner, or a designee, personally liable for breaches. The Commissioner may delegate investment responsibilities to State officers or employees or to independent firms, banks, or trust companies. Even so, the Commissioner remains potentially liable through failure to act in response to, knowledge of, or knowing participation in, breaches by designees who have been delegated investment powers.

As permitted by the statutes, the Commissioner has delegated investment responsibilities to both departmental staff and independent firms or financial institutions. State investment officers of the Treasury Division of the Department of Revenue manage fixed income investments. These include corporate and government bonds, money market investments, and real estate mortgages, the latter through financial institutions and mortgage lending

companies on contract as seller/servicers. Domestic and international corporate stock investments are managed by investment adviser firms under contracts which grant them full discretion for investment decisions. Real estate equity investments are managed by real estate adviser firms through pools in which the Public Employees' Retirement Trust Fund has invested along with other tax-exempt funds.

Treasury investment officers are subject to certain professional accreditation requirements and also must conform to "The Code of Ethics and Standards of Professional Conduct" of the Financial Analysts Federation as well as the Alaska Executive Branch Ethics Act.

Investment Policy

As fiduciary, the Commissioner is charged by statute with determining the investment objectives and policy for the fund. In so doing, the Commissioner must consider both the assets and liabilities of the system both now and in the future.

One of the means for considering the current and future condition of the system is provided by long-range projections, prepared by the system's actuary and contained in Table I. Table I incorporates the same assumptions used by the actuary in determining contribution rates. Under these assumptions, total contributions currently and for the foreseeable future exceed benefit payments. Thus, the fund could be expected to experience no net outflow and should continue to grow in size for a long period of time. Sensitivity analyses of the projections indicate there may be some chance that a small portion of investment earnings (no more than one-tenth) would be needed after fiscal year 1996 to cover benefit payments. Even in such cases, the size of the fund and its earnings would continue to grow.

Further insight into the current and probable future condition of the system can be gained from examining Table II. The system has a less than average percentage of retired members and years of credited service per member. This seconds the idea that net cash inflows should continue for some time.

The table also indicates that the system is extremely well funded, its assets being only 7.0% short of accrued benefits, compared to 19.5% short for U.S. public pension funds on average. The higher than average spread of the assumed rate of return over salary increases is based on the substantial portion (39 percent) of the fund invested in equities, with their higher than average expected returns, balanced by a relatively high book yield of 9.86 percent on the remaining fixed income portion of the fund. The assumed spread also reflects the dimmer prospects for salary increases as State petroleum revenues decline and budgets tighten. Thus, the fund is in very good condition and can expect to do well in the next few years with only a small and somewhat uncertain need for cash flow from investments to pay benefits.

Table I
Public Employees' Retirement System
Financial Projections
($ millions)

Investment Return: 9.00% (nominal) **Salary Increases: 6.04% (6.5/5.5 assumed)**

As of June 30	Valuation Amounts on July 1 Total Assets	Accrued Liability	Surplus* (Deficit)	Flow Amounts during following 12 months Total Salaries	Employer Contribs	Employee Contribs	Total Contribs	Benefit Payments	Net Contribs	Investment Earnings	Ending Asset Valuation
1988	2,088.4	2,246.6	(158.2)	945.1	128.5	64.6	193.1	97.9	95.2	200.7	2,384.4
1989	2,384.4	2,512.0	(127.6)	1,002.2	126.6	68.5	195.1	106.9	88.2	228.2	2,700.8
1990	2,700.8	2,801.8	(101.0)	1,062.8	123.9	72.6	196.5	116.5	80.0	257.6	3,038.4
1991	3,038.4	3,118.3	(79.9)	1,126.9	122.9	77.0	199.8	125.9	74.0	289.1	3,401.4
1992	3,401.4	3,464.6	(63.2)	1,195.0	125.2	81.6	206.8	136.0	70.9	323.1	3,795.4
1993	3,795.4	3,843.6	(48.2)	1,267.2	128.3	86.5	214.9	148.0	66.8	360.0	4,222.2
1994	4,222.2	4,256.6	(34.4)	1,343.7	132.1	91.8	223.9	160.8	63.1	400.0	4,685.2
1995	4,685.2	4,706.9	(21.7)	1,424.9	136.6	97.3	233.9	175.5	58.4	443.3	5,186.9
1996	5,186.9	5,196.5	(9.6)	1,511.0	141.7	103.2	244.9	191.8	53.1	490.2	5,730.3
1997	5,730.3	5,728.3	1.2	1,602.2	147.7	109.4	257.1	209.3	47.8	541.1	6,319.1
1998	6,319.1	6,305.5	13.6	1,699.0	155.5	116.0	271.6	228.8	42.7	596.2	6,958.1
1999	6,958.1	6,931.3	26.8	1,801.6	163.8	123.0	286.8	247.4	39.5	656.2	7,653.8
2000	7,653.8	7,612.0	41.8	1,910.4	172.4	130.5	302.9	269.4	33.5	721.3	8,408.6
2001	8,408.6	8,350.0	58.6	2,025.8	181.5	138.4	319.9	293.2	26.6	792.0	9,227.3
2002	9,227.3	9,149.7	77.6	2,148.2	191.0	146.7	337.7	318.4	19.3	868.7	10,115.3
2003	11,115.3	10,016.4	98.9	2,278.0	201.0	155.6	356.6	344.0	12.6	951.9	11,079.8

* Surpluses reduce employer contributions over 5 years
* Deficits increase employer contributions over 25 years

As of June 30	Funding Ratio
1988	93.0%
1989	94.9
1990	96.4
1991	97.4
1992	98.2
1993	98.7
1994	99.2
1995	99.5
1996	99.8
1997	100.0
1998	100.2
1999	100.4
2000	100.5
2001	100.7
2002	100.8%

Flow Amounts					
As % of Salaries				As % of Assets	
Employer Contribs	Employee Contribs	Total Contribs	Benefit Payments	Net Contribs	Investment Earnings
13.60%	6.83%	20.43%	10.35%	4.27%	9.00%
12.63	6.83	19.46	10.66	3.48	9.00
11.66	6.83	18.49	10.96	2.80	9.00
10.90	6.83	17.73	11.17	2.30	9.00
10.48	6.83	17.31	11.38	1.97	9.00
10.13	6.83	16.96	11.68	1.67	9.00
9.83	6.83	16.66	11.97	1.42	9.00
9.59	6.83	16.42	12.32	1.19	9.00
9.38	6.83	16.21	12.69	0.98	9.00
9.22	6.83	16.05	13.07	0.79	9.00
9.16	6.83	15.99	13.47	0.65	9.00
9.09	6.83	15.92	13.73	0.54	9.00
9.03	6.83	15.86	14.10	0.42	9.00
8.96	6.83	15.79	14.48	0.30	9.00
8.89%	6.83%	15.72%	14.82%	0.20%	9.00%

Table II

Public Employees' Retirement System Statistics

	Public Employees' Retirement System [1]	Mean of U.S. Public Pension Funds [2]
Average Age of Active Members	39.67	40.7
Average Years of Credited Service	6.45	10.8
% of Total Members Retired	20.1%	26.6%
% of Active Members Vested	51.3%	50.5%
Period in Years to Amortize Unfunded Accrued Benefits	25	26.4
% of Accrued Benefits Unfunded	7.0%	19.5%
Spread of Actuarial Rate of Return Assumption Over Salary Increase Assumption	2.5% first 5 years; 3.5% thereafter	1.9%

[1] *"Actuarial Valuation as of June 30, 1988," William M. Mercer-Meidinger, Inc.*
[2] *"Public Pension Funds 1988," Greenwich Research Associates, Greenwich, Connecticut*

For purposes of establishing investment policy, it is the perpetual nature of the fund and its current and probable future condition of net cash inflows that are the most important characteristics. The long time span before any significant net cash flow is required from investments gives the fund the luxury to make investments which should enjoy higher returns over the long-run, although they may be slow to materialize, or be erratic in the short-run, and it allows greater use of investments which may experience substantial fluctuations in value. The character of the fund expands the universe of investment possibilities and increases the potential for achieving higher returns on the investments.

The primary objective of the investment policy is to maximize the returns on the funds' total investments over a long time span without undertaking an unreasonable degree of risk of reducing the principal of the funds or of realizing the lower returns which would necessitate raising the contribution levels. Higher investment returns over the years mean, at least initially, a larger fund. A larger fund size relative to a retirement system's liability for future benefit payments is the beneficiaries' best security that the pensions will be paid when they are due.

Returns which average higher than the actuarially assumed returns (currently 9 percent) eventually lead to either increases in pension benefits or decreases in the amounts of annual contributions. This tends to bring the size of the fund back closer to the present value of accrued benefits.

In line with this objective, the general investment policy is to emphasize equity investments. Equities are expected to provide, and historically have provided, the highest returns over long periods of time, even though equity returns are subject to substantial variation over shorter time periods. Currently, equity investments include domestic and foreign common stocks and real estate equity funds. The rest of the fund is invested in fixed amount investments, primarily U.S. Treasury securities but also including corporate bonds and real estate mortgages. For similar reasons as the emphasis on equities, fixed amount investments emphasize longer-term instruments whose market prices are subject to greater fluctuation but yield more over the long-run than shorter-term investments. Table III indicates the long-term historical experience on investment returns that underlies this policy.

Table III

U.S. Capital Markets
Average Annual Return
1926-1988

Domestic Common Stocks	10.0%
Long-Term Corporate Bonds	5.0
Long-Term U.S. Treasury Bonds	4.4
U.S. Treasury Bills	3.5
Inflation	3.1

Source: Ibbotson Associates

The most important aspect of implementing the fund's investment policy is the decision as to how much of the fund's assets are to be placed in various classes of investments (the asset allocation decision). By far the majority of the investment returns are attributable to asset allocation decisions as opposed to the choice of independent management firms or choice of individual securities or investments within an asset class.

Table IV presents ranges for various asset classes as a percentage of the total fund that have been established to guide the asset allocation decision. The table also shows the asset allocation at the end of fiscal year 1989.

Table IV
Public Employees' Retirement Trust Fund
Asset Allocation
(as a percent of market value)

Asset Class	Policy Minimum	Policy Maximum	Actual June 30, 1989
Equities	30%	70%	40%
Common Stocks	20	60	33
Domestic	16	48	27
International	4	12	6
Real Estate	4	12	6
Fixed Income	30	70	60
Marketable Securities	18	70	56
Mortgages	0%	12%	5%

Table V presents the asset allocations as of the end of the last five fiscal years. The table shows the increasing emphasis on stocks and long-term corporate bonds, an outgrowth of the investment policy.

Table V
Public Employees' Retirement Fund
Historical Asset Allocation
(as a percent of market value)

	6-30-85	6-30-86	6-30-87	6-30-88	6-30-89
Real Estate Equities	7.1%	5.6%	6.0%	6.8%	6.1%
Domestic Common Stocks	17.1	25.4	30.4	26.6	27.3
International Common Stocks	3.0	6.3	10.1	6.6	6.1
Total Equities	27.2	37.3	46.5	40.0	39.6
International Debt	1.8	-	-	-	-
Corporate Debt	2.6	10.6	9.0	10.9	11.1
Treasury Debt	28.3	26.7	28.1	35.6	34.8
Money Markets	16.4	10.0	9.2	7.5	9.6
Total Marketable Debt	49.1	47.3	46.3	54.0	55.6
Mortgages	23.7	14.9	7.3	6.0	4.9
TOTAL FUND	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

The Economy in Fiscal Year 1989

At the end of fiscal year 1989, the U.S. economy began to show evidence of a slowdown as it responded to the gradual tightening of monetary policy undertaken by the Federal Reserve Bank since the spring of 1988. The economic data pointed to weak consumer spending on autos and housing, flat industrial productivity, and a rise in the exchange value of the U.S. dollar, which slowed export growth.

A slowing economy was also reflected in the fixed income market. During the second half of fiscal year 1989, long-term U.S. Treasury yields fell to 8 percent from previous levels of over 9 percent. The strength in the fixed income market demonstrated the anticipation by investors of slow economic growth, stable inflation and low interest rates. Over the course of the whole fiscal year, long-term Treasury bond prices rose 7.4 percent and long corporate bond prices rose by 5 percent.

The stock market experienced a major advance during fiscal year 1989, especially in the last quarter when it posted an 8.8 percent return on the Standard & Poor's 500 index. However, takeover stocks were among the strong performers , indicating an element of speculation in the market's rise. For the year as a whole, the Standard & Poor's 500 index enjoyed an 20.5 percent increase. On the international front, the strength of the U.S. dollar adversely affected the returns on international equities. The Europe, Australia, Far East ("EAFE") index returns were -6.2 percent for the last quarter, reducing the total return for the fiscal year to 9.5 percent.

Investment Returns

Table VI presents the annual rates of return for the fund by asset class for each of the last five fiscal years and for the entire period. An auditor's opinion accompanies the table. Table VII presents the same information for individual investment adviser firms managing fund assets invested in common stocks. The rates of return are total returns. Total returns include unrealized changes in market value as well as income earned and realized gains or losses.

Table VI indicates that the rate of return on domestic common stocks during the five year period was only slightly above the returns on marketable debt securities. This is quite different from the general historical experience shown in Table III. As indicated by that table, over a long time span, stock returns have exceeded fixed income returns (bonds and bills) by 5 to almost 7 percent per annum. The fund's recent experience in this regard is largely due to the unique historical occurrence of record high inflation rates in the late 1970's and early 1980's. The high inflation caused the Federal Reserve to push interest rates to record levels in order to squelch runaway prices. In the latter part of the 1980's, as inflation and interest rates receded from these record highs, bond prices soared, producing record high returns.

In the future, a return to the more normal situation of significantly higher returns on stocks could be expected. For one thing, interest rates cannot fall below zero, so there is a limit to the return on bonds due to market appreciation. In addition, inflation and interest rates are not expected to again reach anytime soon the record levels that made extraordinary bond returns possible.

KPMG Peat Marwick

Certified Public Accountants

Peat Marwick Main & Co.
601 West Fifth Avenue
Suite 700
Anchorage, AK 99501

Independent Auditors' Report

State of Alaska
Department of Revenue
Division of Treasury:

We have audited the accompanying schedule of total rates of return for the Public Employees' Retirement Trust Fund (Fund), covering marketable debt securities, domestic common stocks, international common stocks, real estate equities and mortgage loans for the period from July 1, 1984 to June 30, 1989 and for each of the years in the five year period ended June 30, 1989. This schedule is the responsibility of the Fund's management. Our responsibility is to express an opinion on this schedule based on our audit.

We conducted our audit in accordance with standards established by the American Institute of Certified Public Accountants. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the schedule is free of material misstatement. An audit includes examining, on a test basis, the underlying data from which the total rates of return are calculated, as well as the calculations themselves. An audit also includes assessing the basic assumptions used by management in making the calculations and the overall presentation of the total rates of return. We believe that our audit provides a reasonable basis for our opinion.

In our opinion, the schedule referred to above presents fairly, in all material respects, the total rates of return for the Public Employees' Retirement Trust Fund for the period from July 1, 1984 to June 30, 1989 and for each of the years in the five year period ended June 30, 1989, computed in accordance with the measurement and disclosure criteria set forth in the notes to the schedule.

Peat Marwick Main & Co.

November 16, 1989

Table VI

STATE OF ALASKA, DEPARTMENT OF REVENUE
DIVISION OF TREASURY
PUBLIC EMPLOYEES' RETIREMENT TRUST FUND

Schedule of Total Rates of Return

Period July 1, 1984 to June 30, 1989

	Year ended June 30					Annual average for five years ended June 30,
	1985	1986	1987	1988	1989	1989
Marketable securities:						
Equity:						
Domestic common stocks	30.2%	39.2%	18.4%	(7.5)%	17.6%	15.2%
International common stocks	16.7	91.3	38.8	(5.0)	9.2	25.2
Total equity	28.2	47.4	22.6	(7.0)	16.0	17.0
Debt	29.4	23.1	4.7	7.8	14.4	14.9
Total marketable securities	29.1	30.9	11.9	1.2	15.0	15.7
Real estate:						
Equities	10.0	8.0	6.2	6.4	8.1	7.7
Mortgage loans	13.2	12.7	9.9	13.7	11.0	12.3
Total real estate	12.4	11.4	8.5	10.0	9.4	10.7
Total Fund investments	23.2	25.6	11.4	2.3	14.3	14.6
Equity investments (note 3)	22.0	38.1	20.2	(5.2)	14.6	15.1
Fixed income investments (note 3)	23.6	20.1	5.6	8.5	14.2	14.4
Total Fund investments	23.2%	25.7%	11.4%	2.3%	14.3%	14.6%

See accompanying notes to schedule of total rates of return.

STATE OF ALASKA, DEPARTMENT OF REVENUE
DIVISION OF TREASURY
PUBLIC EMPLOYEES' RETIREMENT TRUST FUND

Notes to Schedule of Total Rates of Return
Period July 1, 1984 to June 30, 1989

(1) General

The Public Employees' Retirement Trust Fund (Fund) represents the investment portfolio of the State of Alaska Public Employees' Retirement System (PERS). Investments of the Fund include marketable debt securities, domestic common stocks, international common stocks, real estate equities and mortgage loans.

The market values utilized in the total rates of return calculation are determined as follows:

Marketable Securities

Determined at the end of each month by the custodial agents. The agents' determination of market values involves, among other things, using pricing services or prices quoted by independent brokers.

Mortgage Loans

Determined by adjusting purchased yields to the current secondary mortgage market conditions established by the MGIC Investment Corporation. Market value has been reduced by a mortgage loan loss provision for uncollectible problem loans.

Real Estate Equities

Valued by the various companies managing the funds.

(2) Calculation of Total Rates of Return

The Fund uses a dollar-weighted rate of return formula described below, which is generally referred to as an internal rate of return formula.

The total rate of return represents the annually compounded rate of return that discounts the year-end market value of an investment portfolio and that year's cash flows in and out of the portfolio back to the portfolio's market value at the beginning of the year.

The historical total rates of return may not be indicative of future total rates of return. Attention should be drawn to the fact that other performance calculation methods may produce different results and that comparisons of investment results should consider qualitative circumstances and should be made only to portfolios with generally similar investment objectives.

(3) Equity Investments and Fixed Income Investments

Included as equity investments are domestic and international equity common stocks and real estate equities. Included as fixed income investments are marketable debt securities and mortgage loans.

Table VII
Public Employees' Retirement Trust Fund
Common Stock Managers
Total Rates of Return

Manager	Fiscal Year 1985	Fiscal Year 1986	Fiscal Year 1987	Fiscal Year 1988	Fiscal Year 1989	Fiscal Years 1985-89
Domestic Common Stocks						
Alger Management	28.9%	46.0%	9.3%	-10.9%	22.1%	17.5%
Invesco Capital Management	29.0	29.6	19.5	- .2	14.7	18.0
Lehman Ark Management	30.3	34.6	26.2	-3.8	19.3	20.5
IDS	-	-	-	-	27.9	27.9
Miller, Anderson & Sherrerd	-	-	-	-	27.8	27.8
Loomis, Sayles	-	-	-	-	31.3	31.3
United Capital Management	-	-	-	-	22.1	22.1
State Street Bank & Trust	-	-	-	-	21.3	21.3
Total	29.4	37.2	17.7	-4.9	17.6	18.5
International Common Stocks						
Citibank N.A.	17.7	93.4	40.9	-7.5	7.5	26.1
Morgan Guaranty Trust Co.	11.8	92.2	37.9	-3.3	10.8	26.0
Total	14.8	92.8	39.4	-5.4	9.2	26.1
Total Common Stock Managers	27.3%	45.7%	22.1%	-4.9%	15.9%	20.1%

Source: *Treasury Division, Alaska Department of Revenue. Returns are time-weighted rates of return.*

The performance of the marketable securities classes of the fund's investments can be gauged by comparison to market indices contained in Table VIII and from the percentile rankings in comparison with other large pension funds contained in Table IX.

As seen in Table IX, the rankings of domestic and international common stock investments, at the 57th and 67th percentiles respectively, have averaged below the median performance (50th percentile) of other large funds over the five year period. Moreover, rates of return for common stocks, as shown in Table VI, have lagged behind the market averages shown in Table VIII. In part this lag is attributable to the stage of the stock market cycle embraced by the five year period under consideration. The common stock returns for the fund include the money market rates on the cash normally held by most active stock managers. The cash allows them to take advantage of buying opportunities. In contrast, the market indices reflect a fully invested position at all times. This makes it more difficult for active managers to beat the market during an up leg of a cycle, but easier on the down side. Holding cash is also a handicap in general over long time spans since the market's general trend is to increase in value over time as economic growth takes place.

Several changes have been initiated in the management of domestic common stocks that may improve performance in the future. At the beginning of fiscal year 1989, a domestic common stock index fund managed by State Street Bank & Trust was initiated. Halfway through the year, four new active managers were added. The markedly higher rates of return for the new active managers shown in Table VII should be viewed with the recognition that stock markets did much better in the second half than in the first half. The Standard & Poor's 500 increased at an annual rate of 35.8 percent in the second half compared to 6.9 percent in the first half. Another change was the negotiation of performance-based fees for all active managers except Lehman Ark Management and their initiation in January, 1989.

With respect to international common stock, a competitive selection of managers is expected to be undertaken in 1990 after first establishing by contract a custodian bank for international investments. The custodian bank is necessary to consider non-bank investment adviser firms as managers, since such firms do not provide custody services.

During the last five fiscal years, performance of investments in marketable debt securities has been slightly below the upper third of the rankings, on average, as indicated by Table IX. The table also indicates that performance for total marketable securities has been slightly above the median, on average, during the five year period.

A significant factor in the marketable debt and overall marketable securities performance is the longer than average maturities of debt instruments held by the fund. Table X compares the average maturity of the fund's marketable debt to the median of state retirement funds over $500 million in size.

Table VIII
Annualized Rates of Return for Market Indices

Index	Fiscal Year 1985	Fiscal Year 1986	Fiscal Year 1987	Fiscal Year 1988	Fiscal Year 1989	Fiscal Years 1985-89
Standard & Poor's 500 Stock Index	31.0%	35.9%	25.2%	-6.9%	20.5%	20.1%
Europe, Australia, Far East Stock Index	23.3	89.0	58.3	4.1	9.5	33.3
Salomon Brothers Broad Investment - Grade Bond Index	29.9	19.9	5.6	8.1	12.2	14.8
91-Day U.S. Treasury Bills	9.0%	7.1%	5.6%	5.5%	7.8%	7.0%

Table IX
Public Employees' Retirement Trust Fund
Rankings of Investment Returns
(percentile)

Asset Class	Fiscal Year 1985	Fiscal Year 1986	Fiscal Year 1987	Fiscal Year 1988	Fiscal Year 1989
Domestic Common Stock	63	38	96	23	66
Marketable Debt Securities	65	3	59	51	5
Total Domestic Marketable Securities	60	28	64	52	30
International Common Stock	88	48	70	51	78

Note: 1 is the highest rank; 100 is the lowest.

Source: *International common stock comparisons provided by The World Markets Company. Domestic common stock comparisons provided by SEI against state retirement funds in excess of $500 million in size.*

Table X
Marketable Debt Securities
Average Maturity
(years)

Fiscal Year End	Public Employees' Retirement Trust Fund	Median for Large State Retirement Funds
1985	13.0	9.8
1986	11.1	9.3
1987	14.5	9.4
1988	16.0	9.5
1989	13.7	9.5

Source: SEI Corporation

Real estate equities have produced the lowest returns for the fund during the period 1985-89. In the late 1970's and early 1980's, strong inflation resulted in rapid appreciation of real estate, as it did for other hard assets. Combined with extraordinary tax incentives for real estate investments, the run-up in real estate prices produced very high returns to investors. Tax-exempt investors such as pension funds could fully benefit from this market movement, as well as private investors. Tax-exempt institutions could carve out a share of the tax benefits through joint ventures with taxable parties, in addition to benefiting from the general bidding up of property values by taxable investors.

For institutional investors such as pension funds which would hold real estate as part of a portfolio of various classes of investments, real estate also offered the attraction of increasing diversification. Diversification into real estate was particularly desirable because real estate rates of return have had a very low correlation with returns from other classes of investments. This meant much less volatility in returns for the total portfolio. So overall, real estate seemed to be the perfect investment -- offering the highest returns but also lowering risk more than other investments.

These powerful stimuli led to excessive amounts of capital being made available for financing real estate, rampant speculative construction, and ultimately the severest overcapacity the industry has seen. The inevitable downturn in the cycle was acutely more pronounced as a result of the Tax Reform Act of 1986 which eliminated or strictly curtailed most of the tax benefits for real estate investments.

The supply of real estate is highly inelastic in the short-run, due to its long lead times for construction and its long duration once constructed before it's finally "consumed" and demolished. Thus, real estate cycles are among the longer of economic cycles. Even in the face of the current prolonged economic expansion, real estate markets remain difficult. Eventually, real estate returns should improve, but absent the return of a highly inflationary environment and liberal tax incentives, real estate is not expected to yield the heady returns that formerly characterized such investments.

Table XI contains the returns for real estate equity managers for the last five years while Tables XII and XIII show the diversification of the managers' real estate investments geographically and by property type.

Table XI
Public Employees' Retirement Trust Fund
Real Estate Equity Managers
Total Rates of Return

Manager	Fiscal Year 1985	Fiscal Year 1986	Fiscal Year 1987	Fiscal Year 1988	Fiscal Year 1989	Fiscal Years 1985-89
Aetna Capital Management	7.7%	8.2%	6.1%	5.1%	5.8%	6.6%
John Hancock Properties	6.6	6.3	-2.2	-1.3	12.8	4.8
Equitable Real Estate Investment Management	11.2	8.4	8.0	6.5	8.0	8.4
Sentinel Real Estate Corporation	9.0	10.0	6.3	7.3	6.5	7.8
J.M.B. Institutional Realty Corporation	7.8	8.8	8.8	7.3	11.5	8.8
J.P. Morgan Investment Management	15.7	13.3	13.2	9.1	9.3	12.1
Karsten Realty Advisors	.4	7.5	8.4	10.1	6.7	6.5
Prudential - PRISA	9.7	5.6	-	-	-	7.6
Total Real Estate Managers	9.2%	8.6%	6.9%	6.8%	8.1%	7.9%

Source: *Treasury Division, Alaska Department of Revenue. Returns are time-weighted rates of return.*

Table XII
Public Employees' and Teachers' Retirement Trust Funds
Real Estate Equities
Geographical Diversification
(percent of market value as of March 31)

Manager or Fund	Year	East					South					Midwest					West				
		85	86	87	88	89	85	86	87	88	89	85	86	87	88	89	85	86	87	88	89
Aetna		18%	19%	20%	13%	17%	20%	19%	18%	17%	17%	10%	7%	6%	6%	5%	52%	55%	56%	64%	61%
Equitable		27	30	32	29	33	31	29	27	29	26	19	17	17	16	15	23	24	24	26	26
John Hancock [1]		30	29	30	31	22	22	22	23	22	29	22	23	22	22	12	26	26	25	25	37
J.M.B Fund III/IV		24	22	12	21	30	28	27	34	26	18	29	30	24	23	27	19	21	30	30	25
Sentinel		5	1	1	1	3	40	53	52	50	49	27	15	12	12	12	28	31	35	37	36
Karsten		0	0	0	0	0	18	10	5	5	5	0	0	0	0	0	82	90	95	95	95
J.P. Morgan		52	57	54	55	62	30	27	25	23	19	18	16	20	21	18	0	0	1	1	1
Weighted average of Alaska Funds		22	23	21	21	24	27	27	26	25	23	18	15	14	14	13	33	35	38	40	40
Weighted average of all open end funds in Evaluation Associates, Incorporated database.		26%	28%	28%	27%	30%	25%	26%	26%	25%	25%	15%	14%	15%	15%	14%	34%	32%	31%	33%	31%

Notes

1. John Hancock: used 12-31-88 information for 1989

Table XIII
Public Employees' and Teachers' Retirement Trust Funds
Real Estate Equities
Diversification by Property Type
(percent of market value as of March 31)

Manager or Fund	Year	Office					Retail					Industrial					Residential					Hotel				
		85	86	87	88	89	85	86	87	88	89	85	86	87	88	89	85	86	87	88	89	85	86	87	88	89
Aetna		43%	46%	45%	46%	40%	21%	18%	19%	20%	24%	28%	24%	23%	24%	21%	1%	6%	7%	7%	11%	7%	6%	7%	3%	4%
Equitable		40	42	40	45	43	36	36	36	33	38	14	14	15	14	13	0	0	0	0	1	10	8	8	8	5
John Hancock [1]		39	35	34	34	64	12	11	10	11	6	40	40	39	39	21	6	11	14	14	6	3	3	3	2	3
J.M.B. Fund III/IV		45	32	27	35	43	55	68	73	65	53	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0
Sentinel		11	9	8	7	7	5	3	8	10	10	3	10	2	2	2	81	78	82	81	81	0	0	0	0	0
Karsten		18	5	5	5	4	82	79	80	81	83	0	16	15	14	13	0	0	0	0	0	0	0	0	0	0
J.P. Morgan		55	55	51	47	50	36	38	36	35	30	6	5	11	16	18	0	0	0	0	0	3	2	2	2	2
Weighted average of Alaska Funds		33	29	29	30	30	29	27	37	35	34	13	15	10	10	8	14	26	24	23	28	3	2	2	1	1
Weighted average of all open end funds in Evaluation Associates, Incorporated database.		48%	47%	44%	44%	41%	21%	22%	23%	23%	26%	17%	16%	17%	16%	15%	5%	8%	10%	10%	12%	8%	7%	6%	7%	6%

Notes

[1] *John Hancock: used 12-31-88 information for 1989*

The total return measurement for real estate mortgage investments in Table VI is of limited usefulness. These investments are not readily marketable and they are expected to be held to maturity. In this case, the realized rates of return may be more pertinent. Realized returns include the interest on mortgage loans and any realized gains or losses on disposition of foreclosed properties but exclude changes in market value. Table XIV shows that the realized rates for mortgages have been declining.

In part, this is due to the fact that interest rates have declined from the early 1980's. This resulted in lower mortgage returns due to lower interest rates on new purchases. More importantly, since new purchases stopped essentially in fiscal year 1986, heavy payoffs of mortgage loans made at high rates in the early 1980's pushed the average yield down on the remaining mortgage portfolio. Most of the payoffs came from refinancings with other lenders. Table XV reflects these activities.

Table XIV
Public Employees' Retirement Trust Fund
Mortgage Loans
Realized Rates of Return

Fiscal Year	Realized Return
1985	13.2%
1986	12.1
1987	13.6
1988	10.9
1989	9.0
1985-89	12.3%

Mortgage returns have also been hurt since fiscal year 1986 by heavy delinquencies and defaults resulting from the Alaska recession. The mortgage loans have been highly concentrated inside Alaska. At June 30, 1989, only 14.9 percent were secured by property outside Alaska.

Tables XV and XVI show the history of the fund's delinquent loans and real estate owned. The percentages for delinquent loans and real estate owned are magnified by the fact that the mortgage loan portfolio has been shrinking, as shown in Table XVII, with the shrinkage coming from good, commercially-viable loans paying off while the bad loans remain with the fund. Nevertheless, liquidation of real estate owned, with the exception of one property, has resulted to date in a net gain for the fund, disregarding the opportunity costs of invested funds. This is shown in Table XVIII.

As the 117 properties currently owned by the fund and additional foreclosures of delinquent loans are disposed of, losses are expected overall, given the current state of the Alaska economy. The current estimate of loss is reflected in the $6,382,000 loan loss allowance applied against the value of mortgage assets on the fund's books.

Table XV
Public Employees' and Teachers' Retirement Trust Funds
Mortgage Loan Activity

Fiscal Year	Number of Mortgage Purchases	Number of Mortgage Payoffs	Number of Delinquencies and Defaults at June 30 [1]
1982	935	NA	NA
1983	772	280	82
1984	813	707	75
1985	725	508	127
1986	328	1,145	231
1987	7	1,237	406
1988	0	255	491
1989	0	160	556

Note:
[1] *Loans 60 or more days delinquent plus real estate properties owned ("REO").*

Table XVI
Public Employees' Retirement Trust Fund
Mortgage Loan Delinquencies and Real Estate Owned (REO)[1]
($ millions)

June 30	60 Days or More Delinquent	REO	Total Delinquencies and REO	60 Days or More Delinquent	REO	Total Delinquencies and REO
1983	1.9%	.7%	2.7%	$4.4	$1.7	$6.1
1984	1.7	.6	2.3	4.5	1.7	6.2
1985	2.9	.7	3.6	8.7	2.1	10.8
1986	7.6	.9	8.5	18.0	2.2	20.2
1987	23.2	3.9	27.2	32.1	5.4	37.6
1988	26.5	7.6	34.1	31.9	9.1	41.0
1989	26.8%	11.3%	38.0%	$29.7	$12.5	$42.2

Note
[1] *Percentages are the percentages of total loans and REO*

Table XVII
Public Employees' Retirement Trust Fund
Mortgage Asset Allocations at Cost
($ millions)

June 30	Total Fund	Mortgages	Mortgage as % as Total Fund
1980	$400.2	$140.0	35.0%
1981	515.4	162.5	31.5
1982	645.4	201.5	31.2
1983	815.9	228.9	28.1
1984	1,016.3	269.0	26.5
1985	1,241.1	297.6	24.0
1986	1,522.5	237.8	15.6
1987	1,830.6	138.3	7.6
1988	1,978.5	120.5	6.1
1989	$2,206.4	$111.0	5.0%

Table XVIII
Public Employees' Retirement Trust Fund
Liquidation of Real Estate Owned ("REO")

Fiscal Year	# REO's Sold	Gain (Loss)
1981	12	$ 144,239.58
1982	5	(3,995.43)
1983	4	259,068.22
1984	1	(88,735.67)
1985	2	31,191.03
1986	1	(1,184,604.54)
	2	6,160.05
1987	14	57,187.53
1988	11	54,041.23
1989	16	(56,300.78)
	68	**$ (78,748.78)**

Importance to Beneficiaries of Investment Policy and Returns

Investment income is of paramount importance to a pension plan. A study by Frank Russell Co. indicates that, over the life of a defined benefit plan, at least 80 percent of the benefits paid come from investment income, and only 20 percent from contributions. For any given participant, about 60 percent of the investment income accrues after retirement when contributions have ceased.

The current importance of investment income to the fund and its beneficiaries can be seen in the fact that investment income totaled $867.7 million for the fiscal period 1985 to 1989 while assets grew $1,241.9 million in book value. Total investment income exceeded contributions as a source of growth.

Table XIX shows the growth of the Public Employees' Retirement Trust Fund for the period and the sources of that growth. Noteworthy is the fact that contributions have declined while benefits have increased. This has been possible due to total returns averaging 14.6 percent per annum over the period, well in excess of the 9 percent [1] on which contributions are based.

[1] *The actuarial rate of return is technically calculated on a different basis than the total return concept. The actuarial rate involves valuation of fixed income assets at cost rather than market and determines market values using a three year moving average of the ratio of market to book value.*

Table XIX
Public Employees' Retirement Trust Fund
Sources of Asset Growth
($ millions)

Fiscal Year	Contributions[1]	Benefits	Net Contributions	Ordinary Income	Realized Capital Gains	Total Income	Change in Unrealized Capital Gains	Total Return	Year End Assets at Book	Year End Assets at Market [2]
1984									1,028.9	964.7
1985	153.5	48.8	104.7	112.3	1.8	114.1	115.9	230.0	1,241.1	1,295.5
1986	161.2	55.3	105.9	122.9	58.9	181.8	159.9	341.7	1,525.4	1,733.8
1987	145.1	67.7	77.4	118.1	107.9	226.0	-27.8	198.2	1,826.4	2,005.8
1988	144.4	85.3	59.1	135.7	15.8	151.5	-106.9	44.6	2,035.3	2,107.1
1989	132.8	100.5	32.3	155.7	38.6	194.3	111.0	305.3	2,270.8	2,453.7
Total	737.0	357.6	379.4	644.7	223.0	867.7	252.1	1,119.8		

Notes:
1. Net of refunds.
2. Mortgages at cost for fiscal years 1984 through 1986.

Sources:
1. *Comprehensive Annual Financial Report; Alaska Department of Administration; June 30, 1989.*
2. *Public Employees' Retirement Fund, Teachers' Retirement Fund, Annual Financial Report; Division of Retirement and Benefits; June 30, 1988 and June 30, 1985.*
3. *Audited Financial Statements, Alaska Department of Revenue for fiscal years 1986-1989.*
4. *Monthly Financial Reports; June 30, 1985; Treasury Division; Alaska Department of Revenue.*

Also noteworthy is the fact that net contributions (i.e., contributions minus benefits) have decreased markedly. Should a significant portion of investment income be required in the future to meet benefit payments, there would be important implications for investment policy. Asset allocations could then be expected to favor fixed income investments more than would otherwise be the case, in order to lend greater stability to cash flows. However, as discussed under the section on investment policy, actuarial projections do not indicate a likelihood of significant reliance on investment income to meet benefit payments.

The main concern of beneficiaries in regard to the fund is whether the size of the fund is keeping up with the growth in the present value of the benefits likely to be paid in the future. Table XX presents two measures of this key relationship.

Table XX
Public Employees' Retirement System
Funding Ratios

Fiscal Year End	Actuarial Ratio[1]	GASB Statement No. 5 Ratio[2]
1977	65.9%	NA
1978	69.1	NA
1979	68.2	NA
1980	71.3	NA
1981	82.1	NA
1982	79.2	NA
1983	84.6	NA
1984	87.7	NA
1985	93.9	89.6%
1986	102.0	111.8
1987	99.6	105.5
1988	93.0%	94.5%

Sources:

1 *Actuarial Valuation Report; William M. Mercer Meidinger Hansen, Inc. various years*

2 *Independent Auditor's Report, Public Employees' Retirement System; June 30, 1989*

The ratios in Table XX are a comparison of the Public Employees' Retirement Trust Fund assets to the present value of benefits projected to be payable in the future. The difference between the ratios is that the Governmental Accounting Standards Board ("GASB") ratio values the assets as of the year end while the actuary uses a three year moving average.

Within these last five years, the system has achieved full (or more than full) funding for the first time since its inception. When the retirement plan was initiated, a funding gap was created by credits granted for employees' service prior to the plan's start-up. The other factors that create or perpetuate a funding gap are retroactive benefit increases, actual experience less favorable than actuarial assumptions, and any deficiency in payment of actuarially required contributions.

Achievement and maintenance of full funding is the best assurance beneficiaries have of receiving the benefits to which they are entitled. At least one court [2] has held that employees have a vested property right to amounts deposited in a retirement trust fund. In the future, investment policy and returns will be ever more critical to maintenance of full funding as investment returns loom ever larger in the flow of funds. Table I projects investment earnings to constitute almost 75 percent of the total inflow to the fund by fiscal year 2003, compared to approximately 67 percent in fiscal year 1989.

Investment returns in excess of funding requirements lead to either increased benefits or reduced employer contributions, usually both. Absent enactment of legislation increasing statutory benefits under the plan, retired employees still can benefit directly from high investment returns through Post Retirement Pension Adjustments ("PRPA's"). These are increases in retirement annuity payments granted annually to offset the effects of inflation. Prior to July 1, 1986, they were granted each year by the Commissioner of Administration only if the condition of the Public Employees' Retirement Trust Fund permited. Table XXI traces the PRPA's that have been granted.

Table XXI
Public Employees' Retirement System
Post Retirement Pension Adjustments ("PRPA's")

July 1	PRPA
1967	none
1968	none
1969	1.5%
1970	1.5
1971	1.5
1972	none
1973	2.5
1974	3.0
1975	none
1976	none
1977	none
1978	4.0
1979	4.0
1980	4.0
1981	4.0
1982	4.0
1983	none
1984	4.0
1985	4.0
1986	4.0
1987	none
1988	4.0%

[2] *West Virginia Supreme Court. 1988. Dadisman V. Moore, et al (Case No. 18343). Charleston, West Virginia.*

Beyond the use of high investment returns to augment benefits, their use to reduce employer contributions can in some ways be seen to be of benefit to employees. Lower contributions can be expected to increase the willingness and ability of employers to make the required payments. A reduced pension burden on employers increases the security of benefits being paid. Of course, greater security could be had by leaving the amounts in the fund to maintain an overfunded status. Also, the Constitutional obligation of employers to provide the benefits makes the question of security less compelling. This is especially so for employers with the power of taxation. If nothing else, reduced contributions may increase the possibility of eventual statutory amendments to provide greater benefits.

Table XXII displays employer contribution rates for the system since 1980. The fiscal year 1991 rate is 87 percent of the rate in the peak year of fiscal year 1983. Rates are influenced by many other factors besides investment earnings. Two-thirds of the large increase in the 1991 rate is attributable to increases in retiree health insurance premiums. Slightly less than one-third of the increase in the contribution rate resulted from investment returns below the actuarially assumed earnings rate, due to the 1987 stock market crash.

Table XXII
Public Employees' Retirement System
Employer Contribution Rates [1]

Fiscal Year	Percent of Payroll	Fiscal Year	Percent of Payroll
1980	11.96%	1986	13.73
1981	13.10	1987	10.62
1982	13.78	1988	9.38
1983	13.78	1989	9.38
1984	13.68	1990	9.54
1985	13.66	1991	12.00%

Notes:

[1] Changes in actuarial methods and assumptions for the years shown have been as follows:

The actuarial funding method for the years through June 30, 1984 was attained age normal. Effective July 1, 1984, the Plan adopted the projected unit credit actuarial funding method.

Effective July 1, 1980, the plan adopted new actuarial assumptions. The assumed rate of earnings was increased from 6% to 8% per year. The salary increase assumption was changed from 6% per year until age thirty-nine and 5% per year thereafter to 8% for the first five years of employment and 7% thereafter. Health care cost inflation was set at 8%. Turnover and disability assumptions were revised based upon actual experience in 1980 through 1981.

Effective July 1, 1986, the plan adopted new actuarial assumptions. Actuarial funding surpluses are amortized over five years rather than twenty-five years. The assumed rate of earnings was increased from 8% to 9% per year. The salary increase assumption was lowered to 6.5% per year for the first five years of employment and 5.5% per year thereafter. Health care cost inflation was increased to 9%. Turnover and disability assumptions were revised based on actual experience in 1981 through 1985.

Source: *Actuarial Valuation Reports, William M. Mercer Meidinger Hansen, Inc.*

The difference between the 1991 rate and the peak rate in 1983 would represent a savings of over $16 million if applied to the most recent covered payroll reported in the System's financial statements.

One sense of the scope of the beneficiaries' interests at stake can be gained from the size of the Alaska retirement funds under management by the Department of Revenue in comparison to other tax-exempt funds. Table XXIII shows the ranking of the combined Public Employees' and Teachers' Retirement Trust Funds relative to the assets of other tax-exempt funds.

Table XXIII
Tax-Exempt Asset Rankings

Type of Fund	Number of Funds Larger Than Alaska Retirement Funds		Number of Funds Smaller Than Alaska Retirement Funds
Corporate Pension Funds	34		9293
Public Pension Funds	37		506
Union Pension Funds	4		868
Endowments	2	(Alaska just ahead of Harvard)	492
Foundations	1	(Ford Foundation)	593

Source: The Money Market, Directory of Pension Funds and their Investment Managers, 1989, McGraw-Hill.

One of the most important duties of the Commissioner of Revenue -- as a result of the fund's trust character, the scale of its assets, the fund's heavy and growing reliance on investment returns, and the importance of superior returns for increased security and benefits for beneficiaries -- is the determination of investment policy and the expert implementation of that policy in the interest of the fund's beneficiaries. This report is one means of assuring the performance of those duties. An informed system membership may be the best safeguard of beneficiaries' interests over the long run.

Supplementary Fiscal Year 1989 Information

Appended are three schedules containing supplementary information on the Public Employees' Retirement Trust Fund for the fiscal year ended June 30, 1989. Accompanying the schedules are an independent auditor's report on, and notes to, the schedules.

The Report of Assets shows the amounts that were invested in different types of investments (book value) and their respective market values and expected annual income flows. The fund's equity investments have relatively low income yields because the income estimates do not include the highly variable capital gains which are usually realized annually on those investments. When capital gains are included, equity investments normally have higher total returns than fixed income investments. On June 30, 1989 the fund's market value of $2,454 million exceeded its book value by $183 million and its income from investments, excluding capital gains, is expected to be about $170 million in the current fiscal year.

The second schedule, Reconciliation of the Fund's Book Value for the Fiscal Year, shows sources of the fund's growth in book value during the year. This statement reflects contributions net of benefit payments.

The third schedule, Distribution of Investment Returns by Asset Categories, shows the fiscal year's realized investment returns on each of the different types of investments. Returns on the fixed income investments, which constitute 60 percent of the entire fund, are rather stable and do not vary much from year to year. Equity returns, on the other hand, are highly variable on a year-to-year basis because capital gains can be such an important element of their total returns. This last schedule indicates realized capital gains were the dominant part of common stock returns during 1989. Over the last sixty-two years, capital gains, including unrealized as well as realized gains, have averaged slightly more than half of total returns on common stocks.

The realized rates or return shown in the third schedule are of limited relevance for a fund such as this with a long term investment horizon. They are included as supplementary information.

KPMG Peat Marwick

Certified Public Accountants

Peat Marwick Main & Co.
601 West Fifth Avenue
Suite 700
Anchorage, AK 99501

Independent Auditors' Report

State of Alaska
Department of Revenue
Division of Treasury:

We have audited and reported separately herein on the financial statements of the Public Employees' Retirement Trust Fund (Fund) as of and for the year ended June 30, 1989.

Our audit was made for the purpose of forming an opinion on the basic financial statements of the Fund taken as a whole. The supplementary information included in Schedules 1 through 3 is presented for purposes of additional analysis and is not a required part of the basic financial statements. Such supplementary information on Schedules 1 and 3 has been subjected to the auditing procedures applied in the audit of the basic financial statements and, in our opinion, is fairly stated in all material respects in relation to the basic financial statements taken as a whole. We did not audit the information on Schedule 2 related to contributions received and receivable and, accordingly, do not express an opinion on it.

Peat Marwick Main & Co.

August 26, 1989

STATE OF ALASKA, DEPARTMENT OF REVENUE **Schedule 1**
DIVISION OF TREASURY

Public Employees' Retirement Trust Fund
Report of Assets
June 30, 1989
(000s omitted)

Assets	Percentage of total book value	Book value	Market value	Annual income estimate	Yield to maturity at book value	Current yield at market value
Equities (external managers):						
Real estate equities	6%	$ 133,649	148,353	7,043	5.27%	4.75%
Domestic common stocks	27	615,859	665,999	26,236	4.26	3.94
International common stocks	6	142,255	148,654	4,268	3.00	2.87
Total equities	39	891,763	963,006	37,547	4.21	3.90
Fixed income (Treasury managed):						
Mortgages	5	104,638	111,740	10,474	10.01	9.37
Corporate debt	11	254,649	269,548	25,974	10.20	9.64
U.S. Treasury debt	34	756,117	845,046	75,763	10.02	8.97
Money market issues	10	234,139	234,850	20,862	8.91	9.55
Total fixed income	60	1,349,543	1,461,184	133,073	9.86	9.11
Total investments	99	2,241,306	2,424,190	170,620	7.61	7.04
Cash (interest earning)	-	532	532	45	8.50	8.50
Total investable assets	99	2,241,838	2,424,722	$ 170,665	7.61%	7.04%
Net accruals receivable	1	28,620	28,620			
Contributions receivable	-	374	374			
Total fund assets	100%	$ 2,270,832	2,453,716			

See accompanying notes to supplementary information.

Schedule 2

STATE OF ALASKA, DEPARTMENT OF REVENUE
DIVISION OF TREASURY

Public Employees' Retirement Trust Fund
Reconciliation of the Fund's Book Value
Fiscal year ended June 30, 1989
(000s omitted)

			Percentage of book value change
Investment returns:			
Income earned and received	$ 125,188		53.1%
Capital gains realized	38,584		16.4
Total returns received		163,772	69.5
Accrued income receivable	30,508		
Total returns receivable		30,508	13.0
Total investment returns		194,280	82.5
Less investment expenses		(4,007)	(1.7)
Net investment returns		190,273	80.8
Net contributions received		44,915	19.0
Net contributions receivable		374	0.2
Net change in book value		235,562	100.0%
Fund's book value at June 30, 1988		2,035,270	
Fund's book value at June 30, 1989		$ 2,270,832	

See accompanying notes to supplementary information.

STATE OF ALASKA, DEPARTMENT OF REVENUE
DIVISION OF TREASURY

Schedule 3

Public Employees' Retirement Trust Fund

Distribution of Investment Returns
by Asset Categories at Book Values

Fiscal year ended June 30, 1989

(000s omitted)

Assets	Income received	Gain (loss) realized	Returns received	Income accrued	Total investment returns	Percentage yield on annual average book values
Equities (externally managed):						
Real estate	$ 5,745	-	5,745	-	$ 5,745	4.33%
Domestic common stocks	22,334	42,944	65,278	1,888	67,166	11.64
International common stocks	3,881	6,025	9,906	-	9,906	7.15
Total equities	31,960	48,969	80,929	1,888	82,817	9.76
Fixed income (internally managed):						
Mortgages	8,216	-	8,216	-	8,216	7.48
Other debt issues	85,012	(10,385)	74,627	28,620	103,247	8.64
Total Fixed income	93,228	(10,385)	82,843	28,620	111,463	8.54
Total investment returns	$ 125,188	38,584	163,772	30,508	$ 194,280	9.02%

See accompanying notes to supplementary information.

STATE OF ALASKA, DEPARTMENT OF REVENUE
DIVISION OF TREASURY

Public Employees' Retirement Trust Fund
Notes to Supplementary Information
June 30, 1989

The Fund

The Public Employees' Retirement System is a multiple-employer agent defined-benefit, joint-contributory system established by the State of Alaska for the payment of retirement, disability, health and death benefits to or on behalf of qualified employees of the state, municipalities, or other political subdivisions of the state. The Public Employees' Retirement Trust Fund (Fund) is a separate fiduciary trust fund established by state statutes. The Commissioner of Revenue is the trustee of the Fund and is responsible for the custody of the assets and for investing the Fund in the best financial interests of the beneficiaries.

(1) Summary of Significant Accounting Policies

The accounting and reporting policies for the Fund conform to generally accepted accounting principles. The more significant accounting policies are as follows:

1. Fiscal year figures are for the Fund's fiscal year ending June 30.

2. Net contributions reflect the amounts the Fund received from the Division of Retirement and Benefits and represent the contributions by employees and employers less the amounts of benefits paid or refunded.

3. Dividend income on domestic common stocks is accrued on their ex-dividend dates. Interest income on domestic debt securities is accrued as earned. Interest income is shown net of amortization of premiums and accretion of discounts. Accrued interest purchased is charged against income at the time of acquisition. International dividends and interest are recognized for income purposes upon notification by the custodian bank.

4. Book value is stated at cost except that the book values of marketable domestic debt issues are adjusted for amortization of premiums and accretion of discounts. Gains or losses on the sale of marketable domestic debt issues are determined on a specific lot identification basis, and gains or losses on the sale of shares in the Consolidated Domestic Equities Fund are determined on an average lot basis.

5. Investment management costs are separately charged to the Public Employees' Retirement System and are not deducted from operating income at the time income is received.

(Continued)

6. Investments are stated on a trade date (ownership) accounting basis, including unsettled transactions as follows: sold securities at proceeds amounts for both book and market values; purchased securities at cost for book value and at closing market prices for market value. Gains and losses on sold securities are recognized as of the trade date.

Market Value

The market value of marketable securities is determined by the custodial agent on the last business day of each month. Real estate equities are valued by the managing firms. The market value of the mortgage investments is estimated by reference to the current secondary mortgage market conditions as reported by the MGIC Investment Corporation. Their estimate is of limited applicability because of the illiquid status of those investments.

Investments

The Fund's deposits and investments are categorized below pursuant to the Governmental Accounting Standards Board (GASB) Statement No. 3 and GASB Technical Bulletin No. 87-1 to give an indication of the level of safekeeping risk assumed by the Fund at statement date. The Treasury Division does not concur in the interpretation which places international common stock investments under Category 2 rather than Category 1.

Deposits

1. Insured or collateralized with securities held by the state or by its custodian in the state's name.

2. Collateralized with securities held by the pledging financial institution's trust department or custodian in the state's name.

3. Uncollateralized.

Investments

1. Insured or registered for which the securities are held by the state or its custodian in the state's name.

(Continued)

2. Uninsured and unregistered investments for which the securities are held by the broker's or dealer's trust department or agent in the state's name.

3. Uninsured and unregistered investments for which the securities are held by the broker's or dealer's trust department or agent not in the state's name.

	Category at book value 1	2	3
	(000s omitted)		
Deposits:			
Cash (interest earning)	$ 532	-	-
Investments:			
U.S. Treasury debt	756,117	-	-
Corporate debt	254,649	-	-
Domestic common stock	615,859	-	-
International common stock	-	142,255	-
Money market issues	234,139	-	-
Mortgages	104,638	-	-
Real estate equities	133,649	-	-
Financial futures	-	-	-
	$ 2,099,583	142,255	-

External Investment Management

Domestic common stocks are assets of the Fund consisting of shares in the Consolidated Domestic Equities Fund currently under external management by contracted managers who have been directed to emphasize domestic corporate common stock investments. International common stocks are assets of the Fund currently under external management by contracted managers who have been directed to emphasize international corporate common stock investments. Real estate equities are assets of the Fund consisting of units or shares in real estate equity funds which are under external contracted management by various companies.

(Continued)

STATE OF ALASKA, DEPARTMENT OF REVENUE
DIVISION OF TREASURY

Public Employees' Retirement Trust Fund
Notes to Supplementary Information

Yields

Yields on United States Treasury issues and Corporate Fixed Income issues reflect weighted average yields-to-maturity based on either cost values or market values. Yields on domestic common stock, international common stock, and money market issues reflect current yields based on either cost values or market values. The yields on mortgages reflect a weighted average yield to a ten year average maturity based on cost values and market values. Yields on real estate equities reflect the annualized realized monthly income as related to book values and market values. The yield on the average annual book value is calculated using the average of the beginning and ending of the year book values.

STATISTICAL SECTION

EMPLOYER CONTRIBUTION RATES
FISCAL YEAR 1989

Employer	Percentage
Adak Region School District	13.73
Akutan	7.02
Alaska, State of	
Policemen, Firemen	13.05
All Other Employees	9.65
Alaska Housing Finance Corporation	0.00
Alaska Municipal League	9.14
Alaska State Building Authority	11.99
Alaska, University of	4.55
Alaska Geophysical Institute, University of,	4.55
Aleutian Region School District	0.00
Aleutians East Borough	10.20
Anchorage, Municipality of	10.60
Anchorage Parking Authority, Municipality of,	8.11
Anchorage School District	11.26
Annette Island School District	10.08
Barrow, City of	7.12
Bartlett Memorial Hospital	8.66
Bering Straits Coastal Resource Service Area	10.20
Bering Straits School District	8.01
Bethel, City of	10.28
Bristol Bay Borough	5.88
Bristol Bay Borough School District	11.23
Bristol Bay Coastal Resource Service Area	12.34
Bristol Bay Housing Authority	11.33
Chatham School District	6.30
Chugach Regional School District	0.00
Copper River Basin Regional Housing Authority	13.80
Copper River School District	0.00
Cordova, City of	16.03
Cordova Community Hospital	2.29
Cordova Public Schools	13.25
Craig, City of	4.91
Craig School District	16.38
Dillingham, City of	3.24
Dillingham City School District	16.20
Elim, City of	10.20
Emmonak, City of	11.91
Fairbanks, City of	13.67
Fairbanks Municipal Utility System	13.67
Fairbanks North Star Borough	1.46
Fairbanks North Star Borough School District	1.46
Fort Yukon, City of	0.00
Galena, City of	10.71
Galena School District	3.25
Haines Borough	13.79

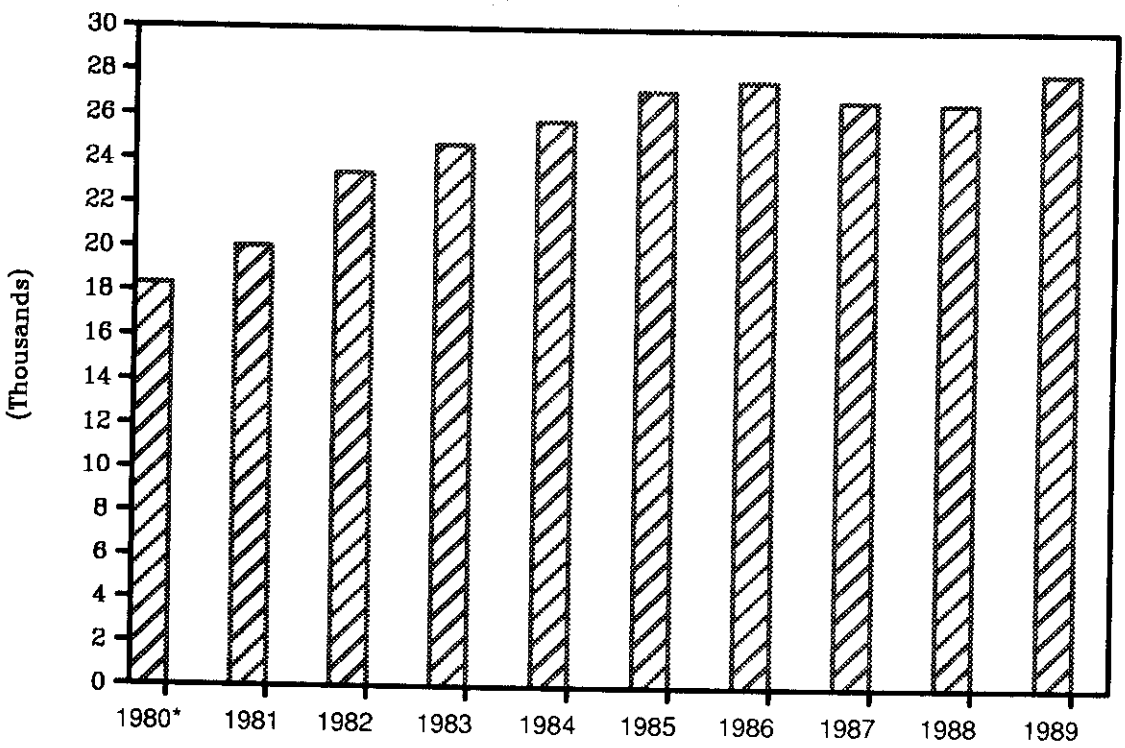
EMPLOYER CONTRIBUTION RATES
FISCAL YEAR 1989

Employer (continued)	Percentage
Haines, City of	1.98
Homer, City of	10.20
Hoonah, City of	9.39
Hoonah School District	12.92
Hooper Bay, City of	10.20
Huslia, City of	10.20
Hydaburg City School District	0.00
Iditarod Area School District	5.45
Juneau Borough School District	10.54
Juneau, City and Borough of	8.66
Kashunamiut School District	9.51
Kaltag, City of	10.20
Kenai, City of	5.40
Kenai Peninsula Borough	10.68
Kenai Peninsula Borough School District	13.67
Ketchikan, City of	15.96
Ketchikan Gateway Borough	6.35
Ketchikan Gateway Borough School District	14.39
King Cove, City of	0.00
King Cove City School District	1.89
Kivalina, City of	10.20
Klawock, City of	18.66
Kodiak, City of	12.98
Kodiak Island Borough	9.20
Kodiak Island Borough School District	6.24
Kotzebue, City of	0.54
Koyuk, City of	10.20
Kuspuk School District	4.35
Lake and Peninsula School District	3.62
Lower Kalskag, City of	10.20
Lower Kuskokwim School District	3.48
Lower Yukon School District	9.90
Matanuska-Susitna Borough	8.12
Matanuska-Susitna Borough School District	8.12
Mountain Village, City of	10.20
Nenana, City of	4.61
Nenana City Public Schools	9.67
Nome, City of	9.45
Nome School District	12.13
Nome Joint Utilities	0.00
Noorvik, City of	10.20
North Pacific Fisheries Management Council	0.00
North Pole, City of	9.12
North Slope Borough	0.00
North Slope Borough School District	3.91

EMPLOYER CONTRIBUTION RATES
FISCAL YEAR 1989

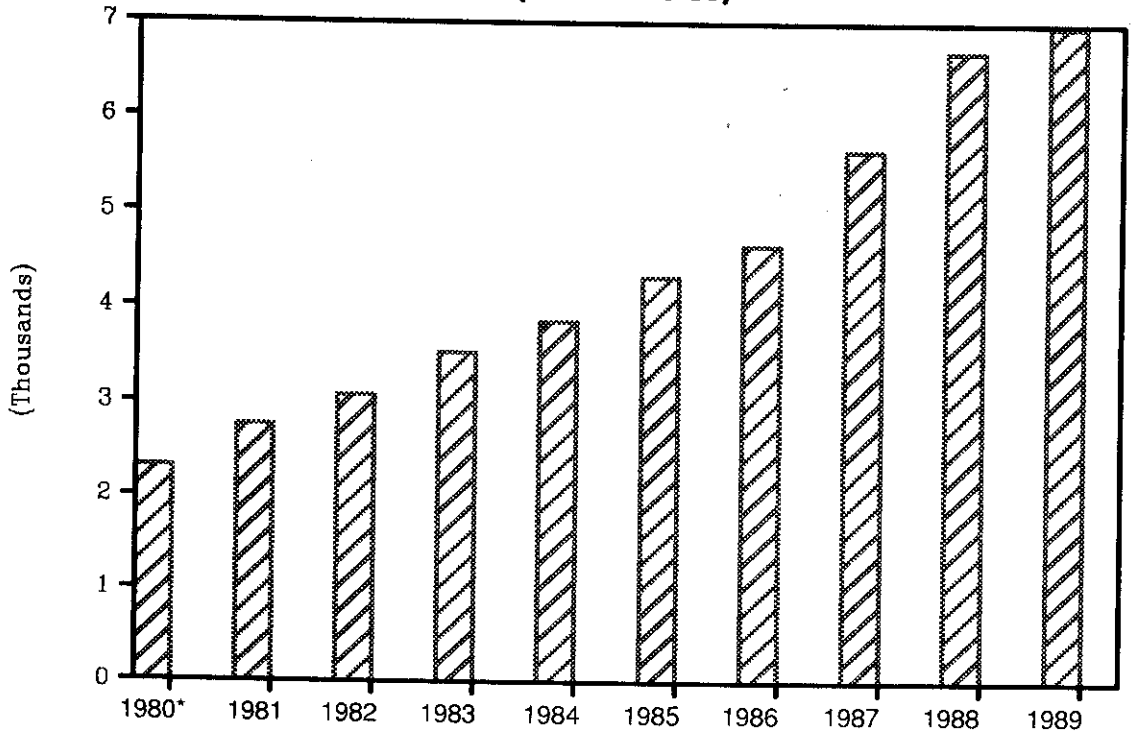
Employer (continued)	Percentage
Northwest Arctic Borough	10.20
Northwest Arctic School District	0.00
Palmer, City of	12.90
Pelican, City of	12.47
Petersburg, City of	14.52
Petersburg General Hospital	14.52
Petersburg Public Schools	14.52
Pribilof Region School District	0.00
Railbelt School District	3.39
Ruby, City of	10.20
Saint Mary's, City of	16.42
Saint Mary's School District	22.56
Saint Paul, City of	4.75
Sand Point, City of	0.59
Sand Point School District	0.00
Saxman, City of	11.54
Selawik, City Council	10.20
Seward, City of	9.74
Seward General Hospital	19.04
Shishmaref, City of	10.20
Sitka, City and Borough of	15.03
Sitka Community Hospital	1.05
Sitka Borough School District	5.44
Skagway, City of	10.25
Skagway City School District	18.01
Soldotna, City of	16.22
Southeast Islands School District	6.65
Southeast Regional Resource Center	0.00
Southwest Region Schools	0.00
Special Education Service Agency	10.20
Tanana, City of	0.00
Tanana City School District	8.82
Thorne Bay, City of	7.86
Unalakleet, City of	16.36
Unalaska, City of	0.00
Unalaska School District	6.66
Valdez, City of	4.45
Valdez School District	6.37
Wainwright, City of	11.30
Wasilla, City of	7.09
Whittier, City of	6.97
Wrangell, City of	9.86
Wrangell School District	10.53
Yukon Flats School District	0.00
Yukon-Koyukuk School District	0.00

ACTIVE MEMBERS
(As of June 30)



* As of January 1, 1980

RETIREES AND BENEFICIARIES
(As of June 30)



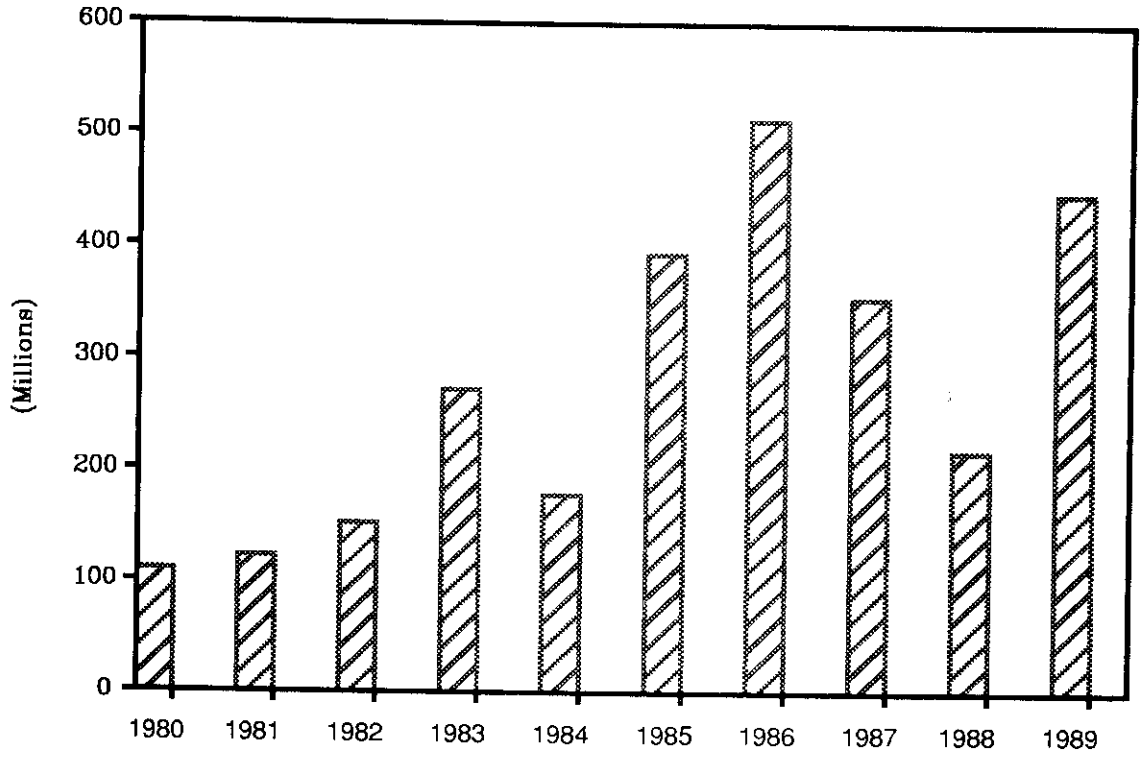
* As of January 1, 1980

Benefit Payments By Occupation
Fiscal Year 1989

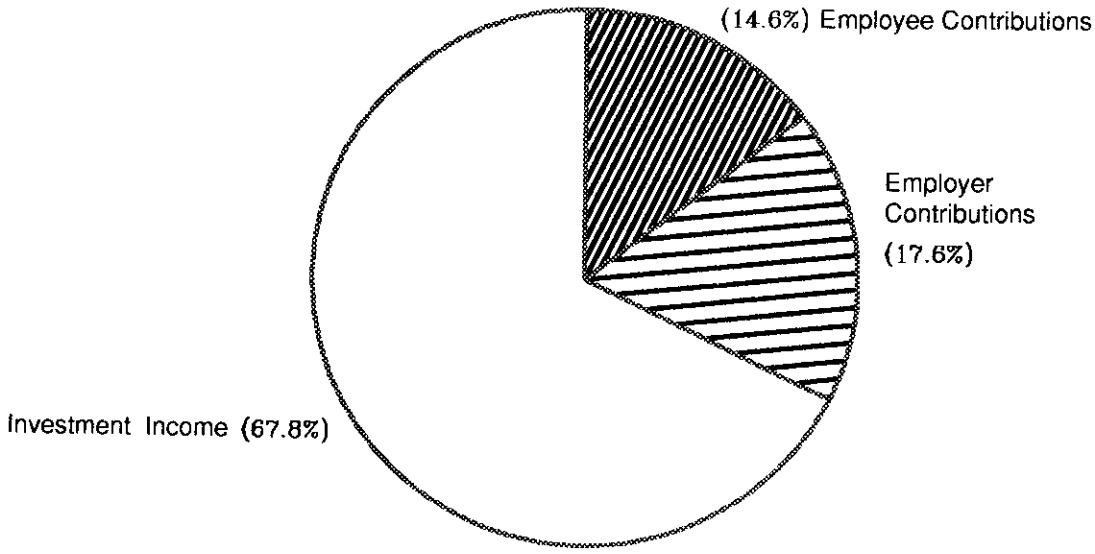
Benefit Type	Regular Retirees	Peace Officer Retirees	Fireman Retirees	* Elected Off. Retirees	Total All Categories
Base	$56,295,617	$ 6,332,807	$ 1,162,837	$ 91,470	$ 63,882,731
Cost of Living Allowance	4,731,030	530,916	104,923	13,430	5,380,299
Non-Occupational Death	1,687,873	62,002	50,219	11,086	1,811,180
Occupational Death	154,062	166,894	19,728	- 0 -	340,684
Disability	1,537,276	560,312	161,755	- 0 -	2,259,343
Post Retirement Pension Adjustment	7,707,347	719,245	181,562	15,310	8,623,464
Voluntary Annuity	4,499	- 0 -	- 0 -	- 0 -	4,499
Lump Sum	400,582	3,508	- 0 -	- 0 -	404,090
Recalculation Adjustments	193,505	2,748	571	1,016	197,840
Benefits Subtotal	**$72,711,791**	**$ 8,378,432**	**$ 1,681,595**	**$ 132,312**	**$ 82,904,130**
Medical					$ 18,065,400
Total All Benefits					**$100,969,530**

* Active and Retired Elected Public Officers as of October 13, 1976, were mandatorily transferred to the Elected Public Officers Retirement System (EPORS), which was established by legislation on January 1, 1976. Under current legislation, all other elected officials may participate in the PERS or the TRS, or do not participate at their option.

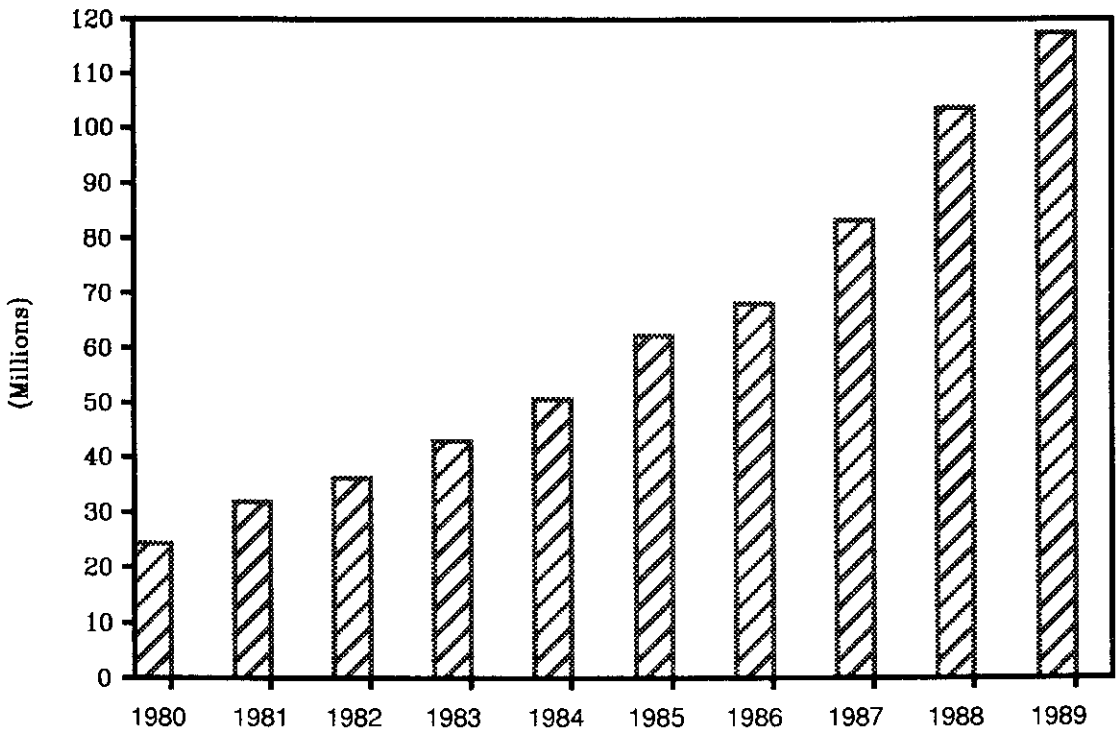
REVENUES
10 Year Comparison



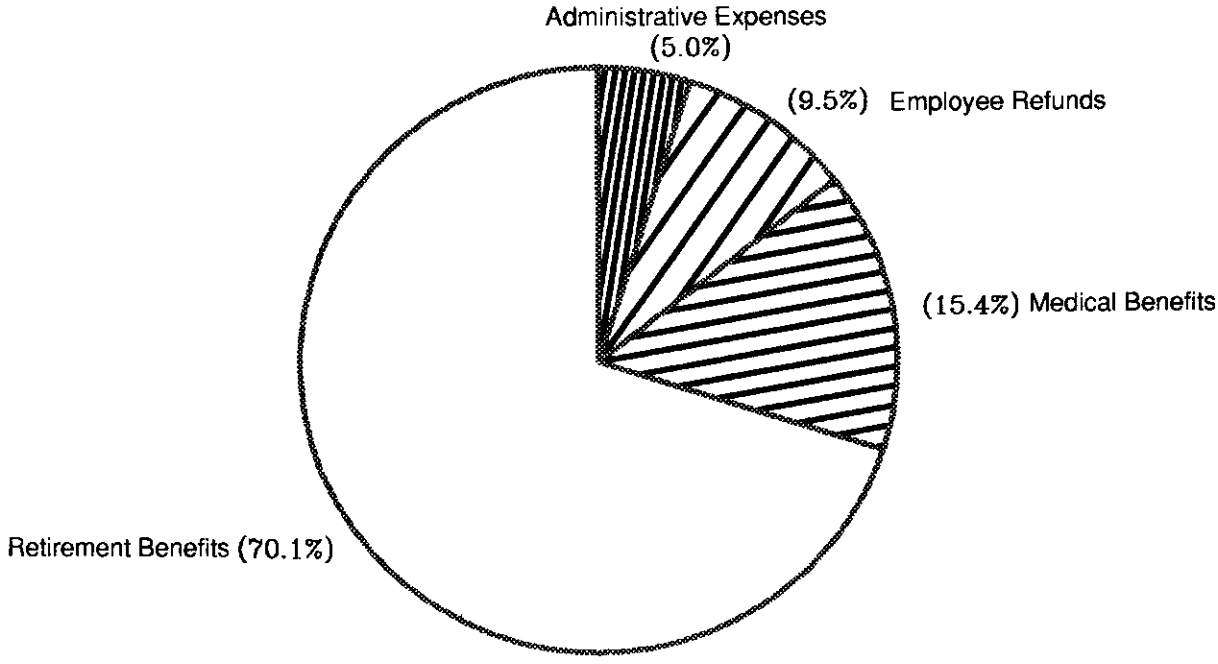
INCOME FOR THE YEAR ENDED
June 30, 1989



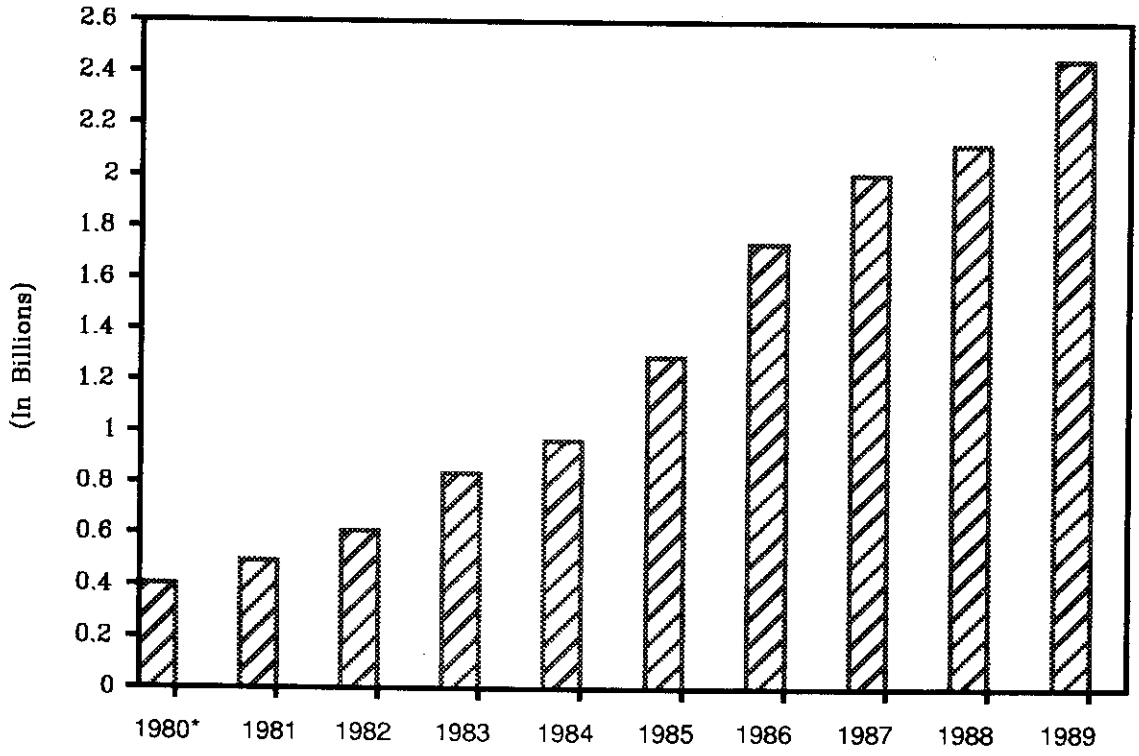
DISBURSEMENTS
10 Year Comparison



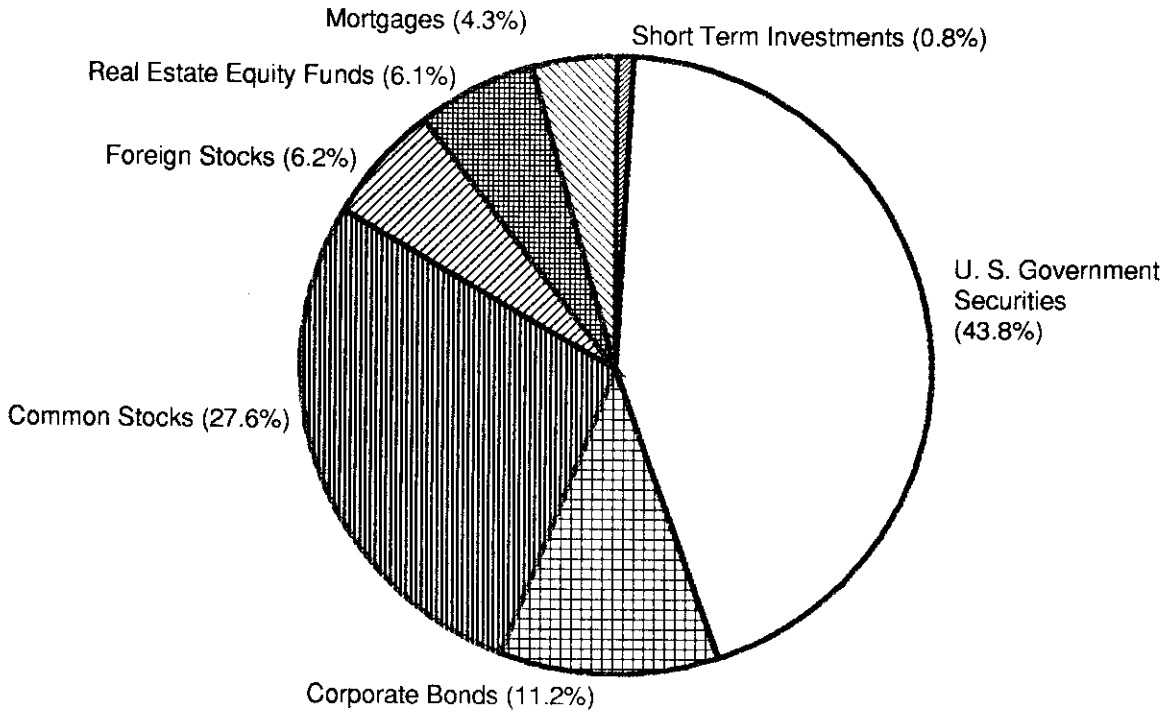
DISBURSEMENTS FOR THE YEAR ENDED
June 30, 1989



NET ASSETS
10 Year Comparison



FY 89 COMPOSITION OF INVESTMENTS



TEACHERS'
RETIREMENT SYSTEM

TEACHERS' RETIREMENT BOARD

From left to right: Dorothy Wells, Vice-Chair; Charles Arteaga, Chair; Merritt C. Olson; Stephanie Winsor; absent from picture, Garris "Bob" Covington.

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FINANCIAL SECTION

Coopers & Lybrand

certified public accountants

Report of Independent Accountants

Division of Retirement and Benefits and
Members of the Alaska Teachers'
Retirement Board
State of Alaska
Teachers' Retirement System
Juneau, Alaska

We have audited the accompanying statement of net assets available for benefits of the State of Alaska Teachers' Retirement System as of June 30, 1989, and the related statement of changes in net assets available for benefits for the year then ended. These financial statements are the responsibility of the management of the State of Alaska, Department of Administration, Division of Retirement and Benefits. Our responsibility is to express an opinion on these financial statements based on our audit. The financial statements of the State of Alaska Teachers' Retirement System as of June 30, 1988 were audited by other auditors, whose report, dated September 12, 1988, expressed an unqualified opinion on those statements.

We conducted our audit in accordance with generally accepted auditing standards. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatements. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the 1989 financial statements referred to above present fairly, in all material respects, the net assets available for benefits as of June 30, 1989, and changes in net assets available for benefits for the year then ended, in conformity with generally accepted accounting principles.

The supplemental schedules of funding progress and revenues by source and expenses by type are not a required part of the basic financial statements of the State of Alaska Teachers' Retirement System but are required by the Governmental Accounting Standards Board. We have applied certain limited procedures which consisted principally of inquiries of management regarding the methods of measurement and presentation of the supplementary information. However, we did not audit this information and express no opinion on it.

Coopers & Lybrand

Anchorage, Alaska
September 10, 1989

STATE OF ALASKA
TEACHERS' RETIREMENT SYSTEM

STATEMENTS OF NET ASSETS AVAILABLE FOR BENEFITS

June 30, 1989 and 1988

($000)

	1989	1988
Assets:		
Investments, at fair value:		
Short-term investments	$ 12,900	$ 20,832
United States Government securities	639,332	523,379
Corporate bonds, notes and debentures	169,248	144,387
Common stocks	423,898	359,898
Foreign stocks	98,147	91,246
Real estate equity funds	88,738	85,587
Total investments	1,432,263	1,225,329
Loans and mortgages, at cost, net of allowance for loan losses of $5,417 in 1989 and $4,876 in 1988	88,235	98,140
Receivables:		
Contributions	7,207	4,802
Retirement incentive program (Note 5)	2,873	9,759
Accrued interest and dividends	17,465	15,496
Total receivables	27,545	30,057
Cash in interest-bearing accounts	524	4,641
Total assets	1,548,567	1,358,167
Liability - accrued expenses	2,690	1,592
Net assets available for benefits	$1,545,877	$1,356,575

The accompanying notes are an integral part of the financial statements.

STATE OF ALASKA
TEACHERS' RETIREMENT SYSTEM

STATEMENTS OF CHANGES IN NET ASSETS AVAILABLE FOR BENEFITS

For the years ended June 30, 1989, and 1988
($000)

	1989	1988
Additions:		
Investment income:		
Net appreciation (depreciation) in fair value of investments (Note 2)	$ 65,243	$ (75,566)
Interest	81,294	72,753
Dividends	18,308	15,156
Net realized gains on sales	26,109	13,512
Total investment income before provision for losses on loans and mortgages	190,954	25,855
Provision for losses on loans and mortgages	541	1,182
Net investment income	190,413	24,673
Contributions:		
Employers (Note 4)	47,348	51,284
Employees (Note 4)	31,888	31,384
Retirement incentive program (Note 5):		
Employer		18,079
Employees		1,720
Total contributions	79,236	102,467
Total additions	269,649	127,140
Deductions:		
Benefits paid:		
Retirement	65,328	60,939
Medical	8,073	5,040
Total benefits paid	73,401	65,979
Refunds to terminated employees	2,953	3,798
Administrative expenses	3,993	4,252
Total deductions	80,347	74,029
Net increase	189,302	53,111
Net assets available for benefits:		
Beginning of year	1,356,575	1,303,464
End of year	**$1,545,877**	**$1,356,575**

The accompanying notes are an integral part of the financial statements.

STATE OF ALASKA
TEACHERS' RETIREMENT SYSTEM

NOTES TO FINANCIAL STATEMENTS

1. Description of State of Alaska Teachers' Retirement System (Plan):

The following brief description of the Plan is provided for general information purposes only. Participants should refer to the Plan agreement for more complete information.

General

The Plan is the administrator of a cost-sharing multiple-employer public employee retirement system established and administered by the State of Alaska (State) to provide pension benefits for teachers and other eligible participants. Benefit and contribution provisions are established by State law and may be amended only by the State Legislature. The Plan is considered a part of the State financial reporting entity and is included in the State's financial reports as a pension trust fund. At June 30, 1989, the number of participating local government employers was:

School District	55
Other	8
Total employers	**63**

All public school districts in the State are required to have its permanent employees who are required to possess a valid State teaching certificate covered by the Plan. At June 30, 1988, Plan membership consisted of:

Retirees and beneficiaries currently receiving benefits and terminated employees entitled to future benefits	3,380
Current employees:	
Vested	4,053
Nonvested	4,165
	11,598

Continued

1. Description of State of Alaska Teachers' Retirement System (Plan), continued:

Pension Benefits

General employees with eight or more years of membership credited service are entitled to annual pension benefits beginning at normal retirement age fifty-five, equal to 2% of their highest three-year average base salary for each year of service. The Plan permits early retirement at age fifty. Employees may elect to receive their pension benefits in the form of a joint and survivor annuity. Effective January 1, 1987, a married member who retires must receive his/her benefit in the form of a joint and survivor annuity unless the member's spouse consents to another form of benefit. Minimum benefits for employees eligible for retirement are $25 per month for each year of credited service. In addition, major medical benefits are provided.

Death and Disability Benefits

If an active employee, first hired under the Plan before July 1, 1982, is participating in the supplemental contribution provision, dies and is survived by a dependent child or children, the employee's spouse and children receive a survivor's allowance from the Plan. The amount of the survivor's allowance is determined by the participant's base salary and the number of dependent children. If an active employee was first hired under the Plan on or after July 1, 1982, is not participating in or eligible for coverage under the supplemental contribution provision and dies from an occupational cause, the spouse or beneficiary will receive a monthly pension from the Plan. The amount of the pension changes on the date the employee's normal retirement would have occurred if the employee had lived. The new benefit is based on the employee's average base salary at the time of his/her death and the credited service that would have accrued if the employee had lived and continued to work until normal retirement age.

If an employee with five or more paid up years of membership service is not eligible for normal retirement benefits and becomes permanently disabled, the employee is entitled to a monthly benefit. The annual disability benefit is equal to 50% of the base salary at time of disablement plus an additional 10% of his/her base salary for each dependent child up to a maximum of four children.

Continued

1. **Description of State of Alaska Teachers' Retirement System (Plan), continued:**

Effect of Plan Termination:

Should the Plan terminate at some future time, its net assets generally will not be available on a pro rata basis to provide participant's beneftis. Whether a particular participant's accumulated Plan benefits will be paid depends on the priority of those benefits at that time. Some benefits may be fully or partially provided for by the then existing assets while other benefits may not be provided for at all.

2. **Summary of Significant Accounting Policies:**

Basis of Accounting

The Plan's financial statements are prepared using the accrual basis of accounting.

Valuation of Investments

Investments, other than real estate equity fund and loans and mortgages, are carried at market value to reflect the asset values of the Plan as determined by the last quoted sales price at June 30, 1989 and 1988.

Real estate equity funds are stated at estimated market value as determined by the independent management of the investment accounts. These investments do not have a readily available market and generally represent long-term investments.

Loans and mortgages are serviced by the institution from which the loan is purchased. The policy of the Plan is to hold these investments until maturity and, accordingly, the investments are stated at cost, less an allowance for estimated loan losses. Loans and mortgages include approximately $11,240,000 and $9,191,000 for 1989 and 1988, respectively, of other real estate owned. Other real estate owned represents properties on which the Plan has foreclosed and is holding with the intent to resell.

The investment activity of all common stocks was consolidated October 1, 1987 with the common stocks of other State funds to form a common stock pool. The activity from October 1, 1987 and the June 30, 1989 and 1988 balances of this common stock pool

Continued

2. Summary of Significant Accounting Policies, Continued:

Valuation of Investments, Continued

are accounted for on a unit-accounting basis. All income and realized and unrealized gains are allocated monthly to each participating fund on a pro rata ownership basis. All income earned is included in dividend income. At June 30, 1989, the Plan's investment in the domestic equity pool is comprised of the following ($000):

Domestic equities	$375,119
Interest and dividends receivable	1,204
Cash and cash equivalents	47,575
Total	**$423,898**

Foreign stocks at June 30, 1989 are comprised of the following ($000):

Foreign equities	$ 89,462
Cash and cash equivalents	8,685
	$ 98,147

The Commissioner of Revenue has the statutory authority to invest the monies of the Plan. This authority is delegated to investment officers of the Treasury Division of the Department of Revenue. Alaska Statute provides for the investment in United States Treasury or agency securities; corporate debt securities; preferred and common stock; commercial paper; securities of foreign governments, agencies, and corporations; foreign time deposits; gold bullion; futures contracts for the purpose of hedging; real estate investment trusts; deposits within Alaska savings and loans and mutual savings banks; deposits with state and national banks in Alaska; guaranteed loans; notes collateralized by mortgages; certificates of deposit and banker's acceptances.

To provide an indication of the level of credit risk assumed by the Plan at June 30, 1989, the Plan's deposits and investments are categorized as follows:

Deposits

Category 1 - Insured or collateralized with securities held by the State or its custodian in the State's name.

Category 2 - Collateralized with securities held by the pledging financial institution's trust department or custodian in the State's name.

Category 3 - Uncollateralized.

Continued

2. Summary of Significant Accounting Policies, continued:

Valuation of Investments, continued

Investments

Category 1 - Insured or registered for which the securities are held by the State or its custodian in the State's name.

Category 2 - Uninsured and unregistered investments for which the securities are held by the broker's or dealer's trust department or agent in the State's name.

Category 3 - Uninsured and unregistered investments for which the securities are held by the broker's or dealer's trust department or agent but not in the State's name.

	Category ($000)			Market Value
	#1	#2	#3	(Carrying Value)
Deposits - cash	$ 524			$ 524
Investments:				
Short-term investments	12,900			12,900
United States Government Securities	639,332			639,332
Corporate bonds, notes, and debentures	169,248			169,248
Common stocks	423,898			423,898
Foreign stocks		$98,147		98,147
Real estate equity funds	88,738		$0	88,738
	$1,334,640	**$98,147**	**$0**	**$1,432,787**

Continued

2. Summary of Significant Accounting Policies, continued:

Short-term investments consist of repurchase agreements totaling $11,600 and certificates of deposits totaling $1,300. Treasury investment policy requires that securities underlying the repurchase agreements must have a minimum market value of 102% of the cost of the repurchase agreement.

During 1989 and 1988, the Plan's investments (including investments bought, sold, as well as held during the year) appreciated (depreciated) in value as follows ($000):

	1989	1988
United States Government securities	$ 29,544	$ (7,881)
Corporate bonds, notes, and debentures	11,272	(3,751)
Common stocks	19,789	(41,372)
Foreign stocks	1,566	(23,030)
Real estate equity funds	3,072	468
	$ 65,243	**$ (75,566)**

The cost, market, and carrying value of the Plan's investments as of June 30, 1989 are as follows:

	Cost	Market	Carrying Value
Short-term investments	$ 12,900	$12,900	$ 12,900
United States Government securities	582,596	639,332	639,332
Corporate bonds, notes, and debentures	160,496	169,248	169,248
Common stocks	391,992	423,898	423,898
Foreign stocks	94,046	98,147	98,147
Real estate equity funds	79,340	88,738	88,738
Loans and mortgages, net of allowance for loan losses of $5,417	88,235	93,826	88,235
	$1,409,605	**$1,526,089**	**$1,520,498**

Continued

2. Summary of Significant Accounting Policies, continued:

Contributions Receivable

Contributions from employees and employers for service through June 30 are accrued. These contributions are considered fully collectible and, accordingly, no allowance for uncollectible receivables is considered necessary.

Accrued Interest and Dividends

Accrued interest and dividends represent amounts earned but not yet received as of June 30. These amounts are considered fully collectible and, accordingly, no allowance for uncollectible receivables is considered necessary. Accrued interest on loans and mortgages is not recorded until received.

3. Funding Status and Progress:

The amount shown below as "pension benefit obligation," which is the actuarial present value of credited projected benefits, is a standardized disclosure measure of the present value of pension benefits, adjusted for the effects of projected salary increases, estimated to be payable in the future as a result of employee service to date. This measure is intended to help users assess the Plan's funding status on a going-concern basis, assess progress made in accumulating sufficient assets to pay benefits when due, and make comparisons among plans. The measure is independent of the actuarial funding method used to determine contributions to the Plan, discussed in Note 4 below.

The pension benefit obligation is determined by William M. Mercer Meidinger Hansen Incorporated and is that amount that results from applying actuarial assumptions to adjust the accumulated benefits to reflect the time value of money (through discounts for interest) and the probability of payment (by means of decrements such as for death, disability, withdrawal, or retirement) between the valuation date and the expected date of payment. The significant actuarial assumptions used in the valuations as of June 30, 1988 are as follows:

a. Actuarial cost method - projected unit credit, unfunded accrued benefit liability amortized over twenty-five years, funding surplus amortized over five years.

b. Mortality basis - 1984 Unisex Pension Mortality Table set back one and one-half years.

Continued

3. Funding Status and Progress, continued:

c. Retirement age - retirement rates based on actual experience.

d. Interest rate - 9% per annum, compounded annually, net of investment expenses.

e. Health cost inflation - 9% per annum.

f. Salary scale - increase of 6.5% for the first five years of employment and 5.5% per year thereafter.

g. Cost of living allowance (domicile in Alaska) - 54% of those receiving benefits will be eligible to receive the cost of living allowance.

h. Contribution refunds - 100% of those terminating after age thirty-five with eight or more years of service will leave their contributions and thereby retain their deferred vested benefit. All others who terminate are assumed to have their contributions refunded.

i. Asset valuation - three-year average ratio between market and book values of the Plan's assets except that fixed income investments are carried at book value. Valuation assets cannot be outside of the range of book and actuarial values.

Turnover and disability assumptions are based upon actual historical occurrence rates of the Plan. The foregoing actuarial assumptions are based on the presumption that the Plan will continue. Were the Plan to terminate, different actuarial assumptions and other factors might be applicable in determining the actuarial present value of accumulated benefits.

Continued

3. Funding Status and Progress, continued:

At June 30, 1988, the assets in excess of pension benefit obligation were $8.8 million, as follows ($ in millions):

Net assets available for benefits as of June 30, 1988, at market, as more fully described in Note 2	$1,356.6
Pension benefit obligation:	
Retirees and beneficiaries currently receiving benefits and terminated employees not yet receiving benefits	688.1
Current employees:	
Accumulated employee contributions including allocated investment income	228.2
Employer-financed vested	381.7
Employer-financed nonvested	49.8
Total pension benefit obligation as of June 30, 1988	1,347.8
Assets in excess of pension benefit obligation as of June 30, 1988	**$ 8.8**

4. Contributions:

Employees' Contributions

Employees contribute 7% of their base salary as required by statute. Qualified members may make an additional contribution of 1% of their salary. Contributions are collected by employers and remitted to the Plan. Present employees' accumulated contributions at June 30, 1989 were $210,000,000. Employees' contributions earn interest at the rate of 4-1/2% per annum, compounded annually.

Continued

4. Contributions, continued

Employers' Contributions

The Plan's funding policy provides for periodic employer contributions at actuarially determined rates that, expressed as percentages of annual covered payroll, are sufficient to accumulate sufficient assets to pay benefits when due. Employer contribution rates are level percentages of payroll and are determined using the projected unit credit actuarial funding method. The Plan also uses the level percentage of payroll method to amortize the unfunded liability over a twenty-five year period. Funding surpluses are amortized over five years.

	1989		1988	
	Contributions ($000)	Percentage of Coverage Payroll	Contributions ($000)	Percentage of Coverage Payroll
Employers	$47,348	12%	$51,284	13%
Employees	31,888	7%	31,384	8%
	$79,236	**19%**	**$82,668**	**21%**

Contributions made in accordance with actuarially determined contribution requirements determined through actuarial valuations consist of the following ($000):

	1989	1988
Normal cost	$71,384	$66,206
Amortization of unfunded actuarial accrued liability	7,852	16,462
	$79,236	**$82,668**

Actuarial valuations for 1989 and 1988 were performed as of June 30, 1988 and 1987, respectively.

Significant actuarial assumptions used to compute contribution requirements are the same as those used to compute the standardized measure of the pension benefit obligation discussed in Note 3.

5. Retirement Incentive Program:

Legislation passed in May 1986 established a retirement incentive program designed to encourage eligible employees to voluntarily retire in order to reduce personnel service costs. The program was available to eligible State employees until June 30, 1987, eligible University of Alaska employees from October 1, 1986 to September 30, 1987, and all other members from January 1, 1987 to December 31, 1987.

The retirement incentive program receivable represents the reimbursement due from agencies and employers participating in the program and is due in minimum equal annual installments so that the entire balance is paid within three years after the end of the fiscal year in which members retired. Interest on unpaid balances began accruing on March 1, 1988 at 7% per annum. The amount of reimbursement is the actuarial equivalent of the difference between the benefits the member receives after the addition of the retirement incentive under the program and the amount the member would have received without the incentive, less any amount the participant was indebted as part of retiring under the program. Participating members were indebted 21% of their annual compensation for the school year in which the member terminated employment to participate in the program. An outstanding indebtedness at this time a participant was appointed to retirement resulted in actuarial adjustment to his/her benefit.

The effect of the first retirement incentive program on the pension benefit obligation was fully accounted for in the June 30, 1988 actuarial valuation.

Legislation passed in June 1989 established a second retirement incentive program. The second program will be available to members from July 1, 1989 through December 31, 1989. The terms and conditions of the second retirement incentive program are the same as those for the first retirement incentive program previously described.

6. Ten-year Historical Trend Information:

Ten-year historical trend information designed to provide information about the Plan's progress made in accumulating sufficient assets to pay benefits when due is presented on the accompanying supplemental schedules of analysis of funding progress and revenues by source and expense by type.

7. Contingent Liabilities:

The State of Alaska Public Employees' Retirement System (PERS) was a party to an action contesting application of the early retirement factors adopted by PERS in the calculation of the pension benefit obligation. The Alaska Supreme Court ruled in 1987 that the PERS application of the early retirement factors was incorrect. While the suit was not directed at the State of Alaska Teachers' Retirement System (TRS), its outcome indirectly affected the TRS application of actuarial retirement factors. The effect of the suit on the pension benefit obligation or the amount payable to retirees as a result of not using more favorable actuarial retirement factors has not been determined and, in the opinion of the TRS actuary and officials of the Division of Retirement and Benefits, will not significantly affect the Plan's financial status.

STATE OF ALASKA
TEACHERS' RETIREMENT SYSTEM

REQUIRED SUPPLEMENTARY INFORMATION

ANALYSIS OF FUNDING PROGRESS

(Unaudited)

($000)

Year Ended June 30	Net Assets Available	Pension Benefit Obligation	Percentage Funded	Unfunded (Assets in Excess of) Pension Benefit Obligation	Annual Covered Payroll	Unfunded (Assets in Excess of) Pension Benefit Obligation as of Percentage of Covered Payroll
1985	$ 866,333	$1,042,551	83.1%	$176,218	$358,110	49.2%
1986	1,141,650	1,115,773	102.3	(25,877)	392,136	(6.6)
1987	1,303,464	1,210,909	107.6	(92,555)	348,606	(26.6)
1988	1,356,575	1,347,859	100.6	8,716	361,310	2.4

Analysis of the dollar amounts of net assets available for benefits, pension benefit obligation, and unfunded pension benefit obligation in isolation can be misleading. Expressing the net assets available for benefits as a percentage of the pension benefit obligation provides one indication of the Plan's funding status on a going-concern basis. Analysis of this percentage over time indicates whether the plan is becoming financially stronger or weaker. Generally, the greater this percentage, the stronger the plan. Trends in unfunded pension benefit obligation and annual covered payroll are both affected by inflation. Expressing the unfunded pension benefit obligation as a percentage of annual covered payroll approximately adjusts for the effects of inflation and aids analysis of the Plan's progress made in accumulating sufficient assets to pay benefits when due. Generally, the smaller this percentage, the stronger the plan.

See notes to financial statements.

STATE OF ALASKA
TEACHERS' RETIREMENT SYSTEM

REQUIRED SUPPLEMENTARY INFORMATION

REVENUES BY SOURCE AND EXPENSES BY TYPE

(Unaudited)

($000)

Year Ended June 30	Revenues By Sources: Employee Contributions	Employer Contributions	Investment Income	Unrealized Appreciation (Depreciation) in Market Value	Total	Employer Contribution as of Percentage of Annual Covered Payroll
1979	$15,142	$26,559	$ 22,832	$ 518	$ 65,051	13.8%
1980	16,651	31,243	32,274	(6,494)	73,674	14.4
1981	18,853	37,654	39,804	(19,017)	77,294	16.2
1982	21,735	50,857	31,574	(6,701)	97,465	18.7
1983	24,546	54,718	62,846	36,218	178,328	18.6
1984	27,257	63,316	61,559	(48,194)	103,938	19.4
1985	29,176	68,826	74,171	78,418	250,591	19.2
1986	32,039	69,276	119,173	103,643	324,131	17.7
1987	34,159	58,177	143,692	(15,677)	220,351	16.7
1988	33,104	69,363	100,239	(75,566)	127,140	19.2

	Expenses By Type: Retirement Benefits	Medical Benefits	Refunds to Terminated Employees	Administrative Expenses	Total
1979	$12,933	$ 905	$2,420	$ 699	$16,957
1980	15,548	914	3,088	853	20,403
1981	18,414	1,590	3,172	1,178	24,354
1982	21,198	1,683	2,974	1,333	27,188
1983	24,053	2,307	2,509	1,606	30,475
1984	27,792	3,257	3,094	1,605	35,748
1985	33,360	4,393	3,126	2,951	43,830
1986	38,476	4,424	3,311	2,603	48,814
1987	46,183	4,613	4,239	3,502	58,537
1988	60,939	5,040	3,798	4,252	74,029

Contributions were made in accordance with actuarially determined contribution requirements.

See notes to financial statements.

TEACHERS' RETIREMENT SYSTEM

NOTES TO REQUIRED SUPPLEMENTARY INFORMATION

(Unaudited)

All significant accounting policies, benefit provisions and actuarial assumptions are the same for the required supplementary information and the financial statement except as follows:

The Plan's actuarial funding method for the years ended June 30, 1978 through June 30, 1984 was attained age normal. Effective July 1, 1984, the Plan adopted the projected unit credit actuarial funding method.

Effective July 1, 1980, the Plan adopted new actuarial assumptions. The assumed rate of interest was increased from 6% to 8% per year. The salary scale assumption was changed from 6% per year until age thirty-nine and 5% per year thereafter to 8% for the first five years of employment and 7% thereafter. Health care cost inflation was set at 8%. Turnover and disability assumptions were revised based upon actual experience in 1980 through 1981.

Effective July 1, 1986, the Plan adopted new actuarial assumptions. Actuarial funding surpluses are amortized over five years rather than twenty-five years. The assumed rate of interest was increased from 8% to 9% per year. The salary scale assumption was lowered to 6.5% per year for the first five years of employment and 5.5% per year thereafter, down from 8% and 7%, respectively. Health care cost inflation iwas ncreased to 9% rather than 8% . Turnover and disability assumptions were revised based on actual experience in 1981 through 1985.

The amortization period for the unfunded accrued benefit liability was changed from forty years to thirty years effective July 1, 1978 and from thirty years to twenty-five years effective July 1, 1981.

ACTUARIAL SECTION

HIGHLIGHTS

This report has been prepared by William M. Mercer Meidinger Hansen, Incorporated to:

(1) present the results of a valuation of the Alaska Teachers' Retirement System as of June 30, 1988;

(2) review experience under the plan for the year ended June 30, 1988;

(3) determine the contribution rates for the State and for each school district in the system;

(4) provide reporting and disclosure information for financial statements, governmental agencies, and other interested parties.

The report is divided into two sections. Section 1 describes the basis of the valuation. It summarizes the plan provisions, provides information relating to the plan participants, and describes the funding methods and actuarial assumptions used in determining liabilities and costs.

Section 2 contains the results of the valuation. It includes the experience of the plan during the 1987-88 plan year, the current annual costs, and reporting and disclosure information.

The principle results are as follows:

Funding Status as of June 30:	1987	1988
(a) Valuation Assets*	$1,225,009	$1,331,905
(b) Accrued Liability*	1,210,909	1,347,859
(c) Funding Ratio, (a) / (b)	101.2%	98.8%

Contributions for Fiscal Year	1990**	1991
(a) Normal Cost	9.36%	11.86%
(b) Past Service Rate	1.80%	.41%
(c) Total Contribution Rate	11.16%	12.27%

* In thousands.

** Same as 1989 rates.

In preparing this valuation, we have employed generally accepted actuarial methods and assumptions, in conjunction with employee data provided to us by the plan sponsor and financial information provided by the audited report from Peat, Marwick, Main and Company, to determine a sound value for the plan liabilities. We believe that this value, and the method suggested for funding it, are in full compliance with the Governmental Accounting Standards Board, the Internal Revenue Code, and all applicable regulations.

Respectfully submitted,

Robert F. Richardson

Robert F. Richardson, ASA, EA, MAAA
Principal

Brian R. McGee

Brian R. McGee, FSA
Principal

RFR/BRM/js

March 28, 1989

ANALYSIS OF THE VALUATION

The results of this year's actuarial valuation for the TRS show a modest decrease in the funding ratio, and a very large increase in the employer contribution rate. These changes can be explained by the four major deviations of actual experience in FY 88 from our actuarial assumptions. Overall, there was an actuarial loss during the year of $75,074,000, or 5.6% of the accrued liability.

Retiree Medical Insurance

Last year there was an actuarial loss of $51,917,000 due to the large increase in retiree medical premiums. More importantly, from a cost point of view, this increase resulted in a 3.51% increase in the employer contribution rate.

An analysis of retiree medical claims for the past two years shows a **decrease** in hospital admissions and hospital days per retiree per year, for both under and over age 65. However, total hospital expenses per retiree during these two years increased 18% for retirees over age 65, and 36% for those under age 65.

For many years, we have commented on the substantial increases in retiree medical insurance premiums. The following table summarizes the monthly premium, per benefit recipient, since retiree medical became a benefit of the TRS.

Fiscal Year	Monthly Premium Per Retiree For Health Coverage	Annual Percentage Increase	Average Annual Increase Since 1978
1977	$ 34.75	--	--
1978	57.64	66%	--
1979	69.10	20%	20%
1980	64.70	- 6%	6%
1981	96.34	49%	19%
1982	96.34	0%	14%
1983	115.61	20%	15%
1984	156.07	35%	18%
1985	191.85	24%	19%
1986	168.25	-12%	14%
1987	165.00	- 2%	12%
1988	140.25	-15%	9%
1989	211.22	51%	13%
1990	252.83	20%	13%

In FY 86, the upward spiral of retiree health insurance premiums reversed. At the time it was felt that some of this decrease was due to the cost containment measures which were established and some was due to a correction from the prior year's increase. This downward trend continued in 1987 and 1988. Unfortunately, medical premiums for retirees have once again reversed with an 80% increase in the last two years.

Certainly some of this increase is due to the influx of retirees from the Retirement Incentive Program. While the initial cost of medical care for employees retiring under the RIP is being paid by employers, the 80% increase in premiums was not anticipated in the cost figures. The difference between current medical premiums and those used in the RIP cost figures increased the System's liabilities by $14,735,000.

Also, many of the new retirees are under age 65 with correspondingly higher medical costs. This is because Medicare offsets much of the medical cost after a retiree reaches age 65. During the next few years, the percentage of retirees over age 65 should increase, relieving some of the upward pressure on retiree medical premiums.

The chart on page 7 shows medical claims for pre-65 retirees increasing faster than claims for post-65 retirees. This may reflect the impact of DRG reimbursement holding down claims for retirees over age 65 and eligible for Medicare, and a "cost shift" toward retirees under age 65 and not eligible for Medicare.

Investment Performance

The effect of "Black Monday" on stock market prices was still felt by the equity portion of the TRS portfolio by the end of the fiscal year. Based upon the fund's market value, the investment return during the year was only 1.87%. Valuation assets are based upon a three-year smoothing of actuarial values. Nevertheless, investment return based upon valuation assets was only 6.33% during the year. The net result was an actuarial loss from investment sources of $32,561,000, which resulted in a .84% increase in the employer contribution rate.

Retirement Incentive Program

Primarily due to the Retirement Incentive Program, the number of retirees in the Teachers' Retirement System increased more than 40% during the last two years. Almost 10% of all active teachers took advantage of the RIP and retired earlier with larger benefits.

The cost of the RIP is being paid by employers based on the actuarial value of the extra benefits, calculated individually for each employee who elected to retire under the Program. This cost is being paid over a three-year period. Based on historical averages, it was assumed in the RIP cost calculations that 54% of all retirees would reside in Alaska and receive the 10% C.O.L.A. In the first few years of retirement, a much higher percentage of retirees reside in Alaska. This means high liabilities for recent retirees, which decrease over time as retirees leave the State. This phenomenon resulted in additional liabilities this year associated with the RIP of approximately $4.4 million. This liability is expected to decrease as these RIP retirees leave the state. If the original assumptions are met, the total cost to the System is projected to equal the actuarial value paid by employers for the RIP.

Salary Increases

Somewhat offsetting the above-mentioned actuarial losses was an actuarial gain from salary increases which were less than anticipated. The actuarial gain from these less-than-anticipated salary increases was $25,755,000, which resulted in a .67% decrease in the employer contribution rate.

Volatility of Contribution Rates

For the last few years, the employer contribution rate to the Teachers' Retirement System has been quite volatile. This is primarily due to economic changes which are beyond the State's control. While the medical costs have been volatile, over the long run, of greatest importance is the investment performance of the Teachers' Retirement Fund. When the system was not fully funded, and when the percentage of equities was substantially less, investment performance was more stable. Even with the three-year smoothing approach used to dampen wide swings in market values from year to year, the investment performance realized by the Plan is subject to substantial variation. For the last few years, excellent investment performance contributed to a sharp decrease in employer contribution rates. This year, a lower return contributed to the increase. After the three-year smoothing, the Plan's investment performance was 2.67% below our actuarial assumption. This is not a large deviation! Nevertheless, an actuarial loss of this magnitude, by itself, led to an increase in employer contribution rates of .84% of TRS payroll.

The following table summarizes the sources of increase in the employer contribution rate:

(1) Last year's employer contribution rate	8.19%
(2) Increase due to retiree medical insurance	3.51%
(3) Increase due to less-than-anticipated investment performance	.84%
(4) Decrease due to lower salary raises	- .67%
(5) Impact of all other factors	.40%
(6) Employer contribution rate this year	12.27%

Recommended Change

It is our recommendation that the employer contribution rate be based upon a three-year average of the rates developed in the actuarial reports. This slight change in actuarial methodology will dampen the inevitable swings in employer contribution rates from year to year. The following table summarizes the effect of this recommendation on contribution rates over the last six years:

Valuation Date	Employer Contribution Rate	Three-Year Average Rate	For Fiscal Year
6-30-83	17.36%		FY86
6-30-84	17.36%		FY87
6-30-85	13.28%*	16.00%	FY88
6-30-86	11.16%	13.93%	FY89
6-30-87	8.19%	10.87%	FY90
6-30-88	12.27%	10.54%	FY91

* Note: A change in actuarial assumptions on 6-30-85 lowered the contribution rate from 16.68% to 13.28%.

Summary

With a net actuarial loss of over $75,000,000 and a substantial increase in retiree medical insurance premiums, FY 88 was not a good year financially for the TRS. The funding ratio decreased slightly and the employer contribution rate showed a large increase. Nevertheless, the Plan is very well funded by all standards, as indicated by the 98.8% funding ratio.

SUMMARY OF THE ALASKA TEACHERS' RETIREMENT SYSTEM

(1) Plan

The Teachers' Retirement System of Alaska is a joint contributory retirement system to provide benefits for teachers of the State.

(2) Effective Date

June 30, 1955, as amended through June 30, 1988.

(3) Administration of Plan

The Commissioner of Administration appoints the administrator of the System; the Alaska Teachers' Retirement Board makes recommendations to the Commissioner of Administration; and the Commissioner of Revenue invests the funds.

(4) Membership

Membership in the Alaska Teachers' Retirement System is compulsory for each certificated elementary or secondary teacher, certificated school nurse, and other certificated personnel who are employed on a full-time or part-time basis in positions which require teaching certificates as a condition of employment in the public schools of Alaska. Membership is also compulsory for the Commissioner of Education, supervisors within the Department of Education, and all full-time or part-time teachers of the University of Alaska and administrative personnel occupying full-time positions at the University of Alaska which require academic standings and are approved by the Administrator. Certain State legislators may also elect to be eligible for membership.

(5) Credited Service

A year of membership service is defined to be the same as a school term which is currently a minimum of 172 days, and fractional service credit is on a daily rate basis. Credit is granted for all Alaskan public school service. Credit is granted for accrued, unused sick leave as reflected by the records of the last employer once a member has been on retirement an equal amount of time, meets eligibility requirements and has completed an application for the credit.

(6) Contributions by Teachers

Effective July 1, 1970, each teacher shall contribute 7% of base salary earned from July 1 to the following June 30.

(7) Voluntary Supplemental Contributions

If a teacher who first joined the system before July 1, 1982 wishes to make his or her spouse or minor children eligible for a spouse's pension and/or survivor's allowance, the teacher may elect to make supplemental contributions of an additional 1% of base salary commencing not later than 90 days after marriage, or the birth or adoption of a child, or upon re-entry into the system provided there was at least a twelve (12) month break in service.

(8) Arrearage Contributions

Up to ten years of public or non-public teaching service, or service by a certificated person in a position requiring certification, in an accredited school not covered under the Teachers' Retirement System, or service in an institution of higher learning not under the control of the Board of Regents of the University of Alaska, may be credited for retirement purposes. For teachers first hired after July 1, 1978, the full actuarial cost of providing benefits for the service will be borne by the teacher. No fractional credit is granted for outside service.

Service as a teacher, a certificated person employed in a full-time position requiring a teaching certificate, or a professional educator, in an Alaska B.I.A. school or school system may be credited for retirement purposes. Contributions are required for service which is claimed. There is no limit on the amount of Alaska B.I.A. service that may be claimed. Fractional credit is granted for Alaska B.I.A. service and military service.

A maximum of five years of military service may be credited for retirement purposes; however, the maximum outside and military service credit may not exceed ten years, unless entry into the military is immediately preceded by TRS service and following discharge is continued by TRS service within one year. Contributions are required for service which is claimed. Fractional credit is granted for military service.

(9) Retroactive Contributions

If a teacher was not subject to the provisions of the Retirement Act and, at a later date became subject to them due to legislative changes to the eligibility requirements, the teacher may elect to receive credit for creditable service prior to membership by submitting to the Retirement Fund an amount equal to the contributions that would have been made if the teacher had been a member of the System for any year's service after June 30, 1955, plus interest thereon. Retroactive contributions are not required for creditable membership service before July 1, 1955.

(10) Employers' and State's Contributions

The employer contributes an amount required, in addition to member contributions, to finance the benefits of the System.

(11) Rate of Interest

The amount deposited in a member account will be credited with interest at the rate established for a school year at the end of such school year. Effective June 30, 1974, the interest rate was increased to 4-1/2%.

(12) Withdrawal of Mandatory Contributions

If a member terminates teaching services in Alaska, mandatory contributions may be withdrawn. Upon request, a terminated teacher will receive a refund of the balance of the member contribution account.

(13) Reinstatement of Contributions

If Mandatory Contributions are withdrawn and a member subsequently resumes teaching in Alaska, the member will be indebted to the Teachers' Retirement Fund in the amount of the total refund. The reinstatement indebtedness bears compound interest at the rate prescribed by regulation to the date of repayment or the date of retirement, whichever occurs first.

(14) Normal Retirement Eligibility

Meeting the requirement of either (a) or (b) below:

(a) Upon attaining age 55 and meeting one of the following service requirements:

(1) Eight years of fully-paid membership service, or

(2) 15 years of fully-paid creditable service, the last five of which have been membership service; (after July 1, 1975 a new member needs eight years of fully-paid membership service); or

(3) Five years of fully-paid membership service and three years of fully-paid Alaska B.I.A. service;

or;

(b) At any age after meeting one of the following service requirements:

(1) 25 years of fully-paid creditable service, the last five of which are membership service; or

(2) 20 years of fully-paid membership service; or

(3) 20 years of fully-paid combined membership service and Alaska B.I.A. service, the last five of which are membership service.

(4) 20 part-time years of fully-paid membership service (at least one-half year each).

A retired teacher who has been receiving a disability retirement benefit shall be eligible for a service retirement benefit upon satisfying normal retirement eligibility.

(15) Early Retirement Eligibility

Upon attaining age 50 and meeting one of the following service requirements:

(1) Eight years of fully-paid membership service, or

(2) 15 years of fully-paid creditable service, the last five of which have been membership service; (after July 1, 1975 a new member needs eight years of fully-paid membership); or

(3) Five years of fully-paid membership service and three years of fully-paid Alaska B.I.A. service during which the teacher received compensation for at least two-thirds of each school year.

(16) Computation of Average Base Salary

A teacher's average base salary is determined by averaging the teacher's highest base salary which the teacher received for any three years of membership service.

(17) Normal Retirement Benefit

The normal retirement benefit is 2% of the teacher's Average Base Salary multiplied by the total number of years of creditable service.

(18) Early Retirement Benefit

A teacher who meets the service requirements for normal retirement, but not the age requirements, may elect to have reduced payments commence as early as age 50. The reduced Early Retirement Benefit is equal to the actuarial equivalent of the normal retirement benefit.

(19) Indebtedness Owing At Retirement

If on the date of appointment to retirement, a teacher has not paid the full amount of his indebtedness including interest to the Retirement Fund, the retirement benefit will be reduced for life by an amount equal to the actuarial equivalent of the outstanding indebtedness at the time of retirement.

(20) Re-employment of a Retired Teacher

If a retired teacher is reemployed in a position covered under the System, the retirement benefit will be suspended during the period of reemployment.

During such period of reemployment, retirement contributions are mandatory.

(21) Disability Retirement Benefits

A disability retirement benefit may be paid if a teacher has become permanently disabled before 55 and has at least five years of fully-paid membership service.

The benefit will be equal to 50% of the disabled teacher's base salary immediately prior to becoming disabled. This benefit will be increased by 10% of the teacher's base salary for each minor child up to a maximum of 40%.

When the disabled teacher attains age 55, the disability benefit will automatically terminate. A normal retirement benefit will be computed as if the teacher had been in membership service during the period of disability, and a service retirement will be granted.

(22) Cost-of-Living Allowance

An eligible retired teacher who remains in Alaska is entitled to receive an additional cost-of-living allowance equal to 10% of the base retirement benefit.

(23) Post-Retirement Pension Adjustment

When the administrator determines that the cost of living has increased and that the financial condition of the retirement fund permits, all retirement benefits may be

increased. The amount of the increase shall be not more than the lesser of 4% compounded for each year of retirement, or the cost-of-living increase since the date of retirement, reduced by prior Post-Retirement Pension Adjustments.

(24) Lump Sum Non-Occupational and Occupational Death Benefit

Upon a non-occupational death of a member who has made no supplemental contributions or who made supplemental contributions for less than one year and has completed less than one year of membership service, a lump-sum benefit shall be paid to the designated beneficiary. The lump-sum benefit is the teacher's accumulated member contribution account. If the teacher is in active service at the time of death after completing at least one year of membership service but before becoming a vested member, an additional death benefit equal to $1,000 plus $100 for each year of membership service (the total not to exceed $3,000), plus $500 if the teacher is survived by one or more minor children is also payable.

Upon an occupational death of a member who has not made the required supplemental contributions, a monthly survivor's pension equal to 40% of the base salary at the time of death or disability, if earlier, may be payable. At the member's Normal Retirement Date, the benefit converts to a Normal Retirement benefit based on pay at date of disability or death and credited service, including period from date of disability or death to Normal Retirement Date.

If the teacher had received a retirement benefit prior to his death, payment shall be his accumulated contributions, plus interest, minus all benefits paid. However, if the teacher elected one of the joint and survivor options (50%, 66-2/3% or 75%) at retirement, an eligible spouse would receive a continuing monthly benefit for the rest of his or her life.

(25) Survivor's Allowance

If a teacher has made supplemental contributions for at least one year and dies while in membership service, or while receiving a disability benefit, or if a teacher has made supplemental contributions for at least five years and dies while on retirement or in deferred retirement status, and is survived by one or more minor children, his surviving spouse and/or minor children are entitled to the survivor's allowance. The amount of the benefit is 35% of the teacher's base salary immediately prior to his death or becoming disabled for his spouse and 10% for each minor child up to a maximum of 40%. The survivor's allowance commences the month following the member's death. When there is no longer an eligible minor child, this allowance ceases and a Spouse's Pension becomes payable.

(26) Spouse's Pension

If a teacher has made supplemental contributions for at least one year and dies while in membership service, or while receiving a disability benefit, or if a teacher has made supplemental contributions for at least five years and dies while on retirement or in deferred retirement status, the surviving spouse is entitled to receive the Spouse's Pension. The amount of the benefit is 50% of the service retirement benefit that the deceased teacher was receiving or would have received. The Spouse's Pension commences the month following the member's death. The payment ceases when the spouse dies.

PARTICIPANT CENSUS INFORMATION AS OF JUNE 30

	1984	1985	1986	1987	1988
Active Members					
(1) Number	8,259	8,684	8,824	7,797	8,218
(2) Number Vested			4,233	4,196	4,053
(3) Average Age	39.76	40.04	40.48	41.09	41.34
(4) Average Credited Service	9.53	9.54	9.81	10.45	10.46
(5) Average Annual Salary	$39,416	$41,238	$44,440	$44,710	$43,966
Retirees and Beneficiaries					
(1) Number	1,764	2,022	2,098	2,376	2,972
(2) Average Age	63.17	62.75	63.18	62.83	61.41
(3) Average Monthly Benefit					
Base	$ 1,060	$ 1,176	$ 1,205	$ 1,304	$ 1,460
C.O.L.A.	$ 68	$ 79	$ 79	$ 87	$ 102
P.R.P.A.	$ 188	$ 279	$ 258	$ 268	$ 208
Total	$ 1,316	$ 1,534	$ 1,542	$ 1,659	$ 1,770
Vested Terminations					
(1) Number	509	335	481	777	408
(2) Average Age	46.75	45.49	47.74	47.92	44.26
(3) Average Monthly Benefit	$ 944	$ 850	$ 1,178	$ 1,391	$ 847
Not Vested Terminations With Account Balances					
(1) Number	914	1,093	869	1,529	938
(2) Average Account Balance	$ 5,573	$ 6,649	$ 8,356	$ 9,421	$ 9,773

STATISTICS ON ALL RETIREES AS OF JUNE 30

	1984	1985	1986	1987	1988
Normal Retirement					
Number, Prior Year	1,579	1,627	1,855	1,922	2,194
Net Change During Year	48	228	67	272	566
Number, This Year	1,627	1,855	1,922	2,194	2,760
Average Age At Retirement	56.96	56.57	56.47	56.06	55.11
Average Age Now	64.13	63.49	64.01	63.52	61.84
Average Monthly Benefit	$ 1,317	$ 1,537	$ 1,549	$ 1,672	$ 1,793
Surviving Spouse's Benefits					
Number, Prior Year	42	40	64	69	70
Net Change During Year	(2)	24	5	1	15
Number, This Year	40	64	69	70	85
Average Age At Retirement	57.87	57.29	54.52	53.93	55.83
Average Age Now	64.87	66.20	63.98	63.49	66.74
Average Monthly Benefit	$ 593	$ 953	$ 833	$ 750	$ 708
Survivor's Benefits					
Number, Prior Year	35	37	38	34	32
Net Change During Year	2	1	(4)	(2)	4
Number, This Year	37	38	34	32	36
Average Age At Retirement	35.47	36.23	35.29	39.04	36.15
Average Age Now	41.09	41.84	43.08	46.77	44.66
Average Monthly Benefit	$1,247	$1,501	$1,584	$1,746	$1,513
Disabilities					
Number, Prior Year	56	60	65	73	80
Net Change During Year	4	5	8	7	11
Number, This Year	60	65	73	80	91
Average Age At Retirement	44.11	44.46	44.55	44.00	44.39
Average Age Now	49.64	50.30	50.64	49.93	49.87
Average Monthly Benefit	$1,817	$2,026	$2,003	$2,075	$2,125

ACTUARIAL BASIS

Valuation of Liabilities

A. Actuarial Method - Projected Unit Credit.

Liabilities and contributions shown in the report are computed using the Projected Unit Credit method of funding. The unfunded accrued benefit liability is amortized over 25 years. Actuarial funding surpluses are amortized over five years.

The objective under this method is to fund each participant's benefits under the plan as they accrue. Thus, each participant's total pension projected to retirement with salary scale is broken down into units, each associated with a year of past or future service. The principle underlying the method is that each unit is funded in the year for which it is credited. Typically, when the method is introduced there will be an initial liability for benefits credited for service prior to that date, and to the extent that this liability is not covered by Assets of the Plan there is an Unfunded Liability to be funded over a chosen period in accordance with an amortization schedule.

An **Accrued Liability** is calculated at the valuation date as the present value of benefits credited with respect to service to that date.

The **Unfunded Liability** at the valuation date is the excess of the Accrued Liability over the Assets of the Plan. The level annual payment to be made over a stipulated number of years to amortize the Unfunded Liability is the **Past Service Cost.**

The **Normal Cost** is the present value of those benefits which are expected to be credited with respect to service during the year beginning on the valuation date.

Under this method, differences between the actual experience and that assumed in the determination of costs and liabilities will emerge as adjustments in the Unfunded Liability, subject to amortization.

B. Actuarial Assumptions

1.	Interest	9% per year, compounded annually, net of expenses.
2.	Salary Scale	6.5% per year for the first five years of employment and 5.5% per year thereafter.
3.	Health Inflation	9% per year.
4.	Mortality	1984 Unisex Pension Mortality Table set back 1-1/2 years.
5.	Turnover	Based upon the 1981-85 actual total turnover experience.
6.	Disability	Incidence rates in accordance with Table 2. Post-disability mortality in accordance with rates published by the Pension Benefit Guaranty Corporation to reflect mortality of those receiving disability benefits under Social Security.

7.	Retirement Age	Retirement rates based on actual experience in accordance with Table 3.
8.	Spouse's Age	Wives are assumed to be four years younger than husbands.
9.	Contribution Refunds	100% of those terminating after age 35 with eight or more years of service will leave their contributions in the fund and thereby retain their deferred vested benefit. All others who terminate are assumed to have their contributions refunded.
10.	C.O.L.A.	54% of those receiving retirement benefits will be eligible for C.O.L.A.
11.	Sick Leave	4.7 days of unused sick leave for each year of service will be available to be credited once the member is retired.
12.	Expenses	Expenses are covered in the interest assumption.

Valuation of Assets

Based upon the three-year average ratio between market and book values of the System's assets, except that fixed income investments are carried at book value. Assets are accounted for on an accrued basis. Valuation assets cannot be outside the range of book and actuarial values.

Valuation of Medical Benefits

Medical benefits for retirees are provided by the payment of premiums from the fund. A pre-65 cost and lower post-65 cost (due to Medicare) were assumed such that the total rate for all retirees equals the present premium rate. These medical premiums are then increased with the health inflation assumption. The actuarial cost method used for funding retirement benefits is also used to fund health benefits.

For FY89, the pre-65 monthly premium is $267.43 and the post-65 premium is $76.37, based on a total blended premium of $211.22.

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INVESTMENT SECTION

STEVE COWPER, GOVERNOR

DEPARTMENT OF REVENUE

OFFICE OF THE COMMISSIONER

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December 1, 1989

To the Participating Employees and Employers of
The Alaska Teachers' Retirement System

Dear Members:

I am pleased to provide to you the Teachers' Retirement Trust Fund 1989 Investment Report.

The report describes the nature, management, and investment policy of the fund and presents the investment results for the fiscal year ending June 30, 1989 and the preceding four fiscal years. The report is included in the Annual Report of the Alaska Public Employees' Retirement System and Teachers' Retirement System published by the Department of Administration pursuant to Alaska Statutes 39.35.020(5) and 14.25.030(4).

Sincerely,

Hugh Malone
Commissioner

HM/MB/mem

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TEACHERS' RETIREMENT TRUST FUND
1989 Investment Report

Creation, Purpose, and Nature of the Fund

The Teachers' Retirement Trust Fund is established by Alaska Statutes 14.25.170(5). The fund holds the assets of the Teachers' Retirement System. These assets are comprised of investments of various kinds, including stocks, bonds, and real estate. The fund was created as a means of paying retirement and other benefits to employees participating in the retirement plan administered under the Teachers' Retirement System. The retirement plan is a defined benefit plan in which benefit levels are determined by length of employment and highest average salary of each employee. The plan is a joint-contributory plan in which both employee and employer make continuing contributions, calculated as a percentage of current salary. Employee contribution percentages are fixed by statute. Employer contributions are determined by annual evaluations of the fund by a consulting actuary. The plan is considered to be perpetual because it applies to future as well as current employees and because the employers (state and municipal governments or political subdivisions) are perpetual in nature.

The assets of the fund came into being and have grown because employers and employees have paid more into the fund in the form of contributions than has been paid out in benefits. Investment returns have further increased the fund's assets. Contributions currently exceed benefits by design, in order to be able to make the benefit payments that can reasonably be expected in the future. These projections of future benefit payments are one of the main factors estimated by the actuary in determining employer contribution rates. The other main factors are the amount of assets in the fund and the expected future returns on investments. Future benefits will be much larger than benefits paid today because of past and future growth in the number of employees, in their salaries, and in health care costs for retirees.

Participating employers are bound by the Alaska Constitution to pay the plan's benefits. Although benefits could be paid on a pay-as-you-go basis, the existence of a fund serves two purposes. For the employer, it smooths out over time the burden of paying these benefits, just like mortgage payments smooth out the burden of buying a house. For the employee, it provides insurance that employers will meet their obligations.

Trust Stature of the Fund

It is this insurance function which has caused the fund to be designated by Alaska law as a trust fund. Under common law, a trust fund is a fund which can only be used in the interests of persons designated by the creator of the fund as beneficiaries. Of course, in the case of the Teachers' Retirement Trust Fund, the beneficiaries are the teacher employees, and have been so designated by the State in the laws creating the fund.

As a trust fund, it would be legally suspect for the State, or a municipal employer for that matter, to withdraw money from the fund to use for purposes other than paying benefits. Even underfunding or deferring of an employer's contributions would be questionable, based on Article II, Section 7 of the Alaska Constitution. This constitutional provision places a contractual obligation on employers to pay these benefits.

Perhaps most telling in regards to this obligation is the Alaska Supreme Court's decision in Hammond vs. Hoffbeck. This decision limits public employers' ability to diminish even benefits that could be, but have not yet been earned, by an existing employee. The Hammond vs. Hoffbeck decision is also based on Article II, Section 7 of the Alaska Constitution. This section reads:

> "Membership in employee retirement systems of the State or its political subdivisions shall constitute a contractual relationship. Accrued benefits of these systems shall not be diminished or impaired."

Another reason for establishing and maintaining the fund as a trust is provided by the IRS. The federal tax code allows employee contributions to such funds and the earnings of such funds to be exempt from federal income taxes only if the fund is a trust "for the exclusive benefit" of employees. This actually amounts to a deferral of taxes since retirees are taxed on retirement benefit payments they may ultimately receive. In the case of the Teachers' Retirement System, state statutes would have to be revised to permit exemption of employee contributions.

Thus, the Teachers' Retirement Trust Fund is a fund that must be managed solely with the employee in mind. A strong array of provisions in the Alaska Constitution, common law, Alaska Statutes, and federal tax code places the force of law behind this obligation.

Management of the Fund

Alaska Statutes 14.25.180 designates the Commissioner of Revenue as the treasurer of the system and the fiduciary of the fund. As the sole fiduciary, the Commissioner is solely responsible and accountable for the investment of the fund.

The fiduciary for a trust fund, also known as a trustee, is subject to two principal duties under common law -- a duty of prudence and a duty of loyalty. The duty of prudence requires the trustee to exercise a degree of care in managing investments that would be used by a person of ordinary prudence in managing their own investments. The duty of loyalty requires the trustee to act only in the best interests of the beneficiaries. Alaska law has reformulated these duties to higher and more demanding standards and made them specifically applicable to the Teachers' Retirement Trust Fund. These statutory standards require the fiduciary to exercise the standard of care required of a professional institutional investor managing large investments under a trust relationship and to act only in the best financial interests of the beneficiaries.

The importance of observing these fiduciary duties is underscored by Alaska Statutes holding the Commissioner, or a designee, personally liable for breaches. The Commissioner may delegate investment responsibilities to State officers or employees or to independent firms, banks, or trust companies. Even so, the Commissioner remains potentially liable through failure to act upon, knowledge of, or knowing participation in, breaches by designees who have been delegated investment powers.

As permitted by the statutes, the Commissioner has delegated investment responsibilities to both departmental staff and independent firms or financial institutions. State investment officers of the Treasury Division of the Department of Revenue manage fixed income investments. These include corporate and government bonds, money market investments,

and real estate mortgages, the latter through financial institutions and mortgage lending companies on contract as seller/servicers. Domestic and international corporate stock investments are managed by investment adviser firms under contracts which grant them full discretion for investment decisions. Real estate equity investments are managed by real estate adviser firms through pools in which the Teachers' Retirement Trust Fund has invested along with other tax-exempt funds.

Treasury investment officers are subject to certain professional accreditation requirements and also must conform to "The Code of Ethics and Standards of Professional Conduct" of the Financial Analysts Federation as well as the Alaska Executive Branch Ethics Act.

Investment Policy

As fiduciary, the Commissioner is charged by statute with determining the investment objectives and policy for the fund. In so doing, the Commissioner must consider both the assets and liabilities of the system both now and in the future.

One of the means for considering the current and future condition of the system is provided by long-range projections, prepared by the system's actuary and contained in Table I. Table I incorporates the same assumptions used by the actuary in determining contribution rates. Under these assumptions, total contributions currently and for the foreseeable future exceed benefit payments. Thus, the fund could be expected to experience no net outflow and should continue to grow in size for a long period of time. Sensitivity analyses of the projections indicate there may be some chance that a small portion of investment earnings (no more than one-tenth) would be needed after fiscal year 1991 to cover benefit payments. Even in such cases, the size of the fund and its earnings would continue to grow.

Further insight into the current and probable future condition of the system can be gained from examining Table II. The system has more or less average membership characteristics indicating that it may be closer to seeing its net contribution inflow evaporate, compared to a fund with a relatively low percentage of retired members. A provision for normal retirement after 20 years of service, compared to 30 years for many plans, is one factor elevating the system's percentage of retirees.

The table also indicates that the system is extremely well funded, its assets being only 1.2% short of accrued benefits, compared to 19.5% short for U.S. public pension funds on average. The higher than average spread of the assumed rate of return over salary increases is based on the substantial portion (40 percent) of the fund invested in equities, with their higher than average expected returns, balanced by a relatively high book yield of 9.89 percent on the remaining fixed income portion of the fund. The assumed spread also reflects the dimmer prospects for salary increases as State petroleum revenues decline and budgets tighten. Thus, the fund is in very good condition and can expect to do well in the next few years with only a small and somewhat uncertain need for cash flow from investments to pay benefits.

Table I
Teachers' Retirement System
Financial Projections
($ millions)

Investment Return: 9.00% (nominal) **Salary Increases: 6.04% (6.5/5.5 assumed)**

As of June 30	Valuation Amounts on July 1			Flow Amounts during following 12 months							Ending Asset Valuation
	Total Assets	Accrued Liability	Surplus* (Deficit)	Total Salaries	Employer Contribs	Employee Contribs	Total Contribs	Benefit Payments	Net Contribs	Investment Earnings	
1988	1,331.9	1,348.6	(16.7)	413.5	59.0	37.8	96.8	78.9	17.9	126.0	1,475.9
1989	1,475.9	1,482.3	(6.3)	438.5	59.5	39.7	99.2	83.5	15.6	139.5	1,631.1
1990	1,631.1	1,628.4	2.7	465.0	57.8	38.6	96.5	88.3	8.1	153.7	1,793.1
1991	1,793.1	1,784.9	8.2	493.1	57.7	37.7	95.4	93.4	2.0	168.7	1,963.8
1992	1,963.8	1,952.7	11.0	522.8	60.9	39.8	100.8	98.6	2.1	184.8	2,150.8
1993	2,150.8	2,136.4	14.3	554.4	64.4	42.1	106.6	104.1	2.4	202.3	2,355.6
1994	2,355.6	2,337.5	18.1	587.9	68.0	44.6	112.6	109.9	2.7	221.6	2,580.0
1995	2,580.0	2,557.7	22.3	623.4	71.8	47.1	119.0	114.8	4.2	242.8	2,827.1
1996	2,827.1	2,799.9	27.2	661.1	75.8	49.9	125.7	125.0	.7	265.9	3,093.8
1997	3,093.8	3,061.2	32.6	701.0	80.0	52.7	132.8	129.7	3.1	291.1	3,388.1
1998	3,388.1	3,349.2	38.8	743.4	84.5	55.8	140.3	138.4	1.9	318.7	3,708.8
1999	3,708.8	3,663.0	45.7	788.3	89.2	59.1	148.3	146.3	2.0	348.9	4,059.7
2000	4,039.7	4,006.1	53.5	833.9	94.1	62.6	156.8	151.3	5.5	382.0	4,447.3
2001	4,447.3	4,384.9	62.3	886.4	99.3	66.4	165.7	155.8	9.9	418.7	4,875.9
2002	4,875.9	4,803.8	72.1	939.9	104.7	70.4	175.2	165.2	10.0	459.0	5,345.0
2003	5,345.0	5,261.8	83.1	996.7	110.4	74.7	185.2	172.8	12.3	503.2	5,860.6

* Surpluses reduce employer contributions over 5 years
* Deficits increase employer contributions over 25 years

As of June 30	Funding Ratio
1988	98.8%
1989	99.6
1990	100.2
1991	100.5
1992	100.6
1993	100.7
1994	100.8
1995	100.9
1996	101.0
1997	101.1
1998	101.2
1999	101.2
2000	101.3
2001	101.4
2002	101.5
2003	101.6%

Flow Amounts					
As % of Salaries				As % of Assets	
Employer Contribs	Employee Contribs	Total Contribs	Benefit Payments	Net Contribs	Investment Earnings
14.27%	9.16%	23.43%	19.08%	1.28%	9.00%
13.57	9.06	22.63	19.05	1.01	9.00
12.45	8.32	20.77	19.01	0.48	9.00
11.70	7.65	19.35	18.95	0.11	9.00
11.66	7.63	19.29	18.87	0.11	9.00
11.62	7.61	19.23	18.79	0.11	9.00
11.57	7.59	19.16	18.70	0.11	9.00
11.52	7.57	19.09	18.41	0.16	9.00
11.48	7.55	19.03	18.91	0.03	9.00
11.42	7.53	18.95	18.51	0.10	9.00
11.37	7.51	18.88	18.62	0.05	9.00
11.32	7.50	18.82	18.56	0.05	9.00
11.26	7.50	18.76	18.10	0.13	9.00
11.20	7.50	18.70	17.58	0.21	9.00
11.14	7.50	18.64	17.58	0.20	9.00
11.08%	7.50%	18.58%	17.34%	0.22%	9.00%

Table II
Teachers' Retirement System Statistics

	Teachers Retirement System [1]	Mean of U.S. Public Pension Funds [2]
Average Age of Active Members	41.34	40.7
Average Years of Credited Service	10.46	10.8
% of Total Members Retired	26.6%	26.6%
% of Active Members Vested	49.3%	50.5%
Period in Years to Amortize Unfunded Accrued Benefits	25	26.4
% of Accrued Benefits Unfunded	1.2%	19.5%
Spread of Actuarial Rate of Return Assumption Over Salary Increase Assumption	2.5% first 5 years; 3.5% thereafter	1.9%

[1] *"Actuarial Valuation as of June 30, 1988, "William M. Mercer-Meidinger, Inc.*
[2] *"Public Pension Funds 1988," Greenwich Research Associates, Greenwich, Connecticut*

For purposes of establishing investment policy, it is the perpetual nature of the fund and its current and probable future condition of net cash inflows that are the most important characteristics. The long time span before any significant net cash flow is required from investments gives the fund the luxury to make investments which should enjoy higher returns over the long-run, although they may be slow to materialize, or be erratic in the short-run, and it allows greater use of investments which may experience substantial fluctuations in value. The character of the fund expands the universe of investment possibilities and increases the potential for achieving higher returns on the investments.

The primary objective of the investment policy is to maximize the returns on the funds' total investments over a long time span without undertaking an unreasonable degree of risk of reducing the principal of the funds or of realizing the lower returns which would necessitate raising the contribution levels. Higher investment returns over the years mean, at least initially, a larger fund. A larger fund size relative to a retirement system's liability for future benefit payments is the beneficiaries' best security that the pensions will be paid when they are due.

Returns which average higher than the actuarially assumed returns (currently 9 percent) eventually lead to either increases in pension benefits or decreases in the amounts of annual contributions. This tends to bring the size of the fund back closer to the present value of accrued benefits.

In line with this objective, the general investment policy is to emphasize equity investments. Equities are expected to provide, and historically have provided, the highest returns over long periods of time, even though equity returns are subject to substantial variation over shorter time periods. Currently, equity investments include domestic and foreign common stocks and real estate equity funds. The rest of the fund is invested in fixed amount investments, primarily U.S. Treasury securities but also including corporate bonds and real estate mortgages. For similar reasons as the emphasis on equities, fixed amount investments emphasize longer-term instruments whose market prices are subject to greater fluctuation but yield more over the long-run than shorter-term investments. Table III indicates the long-term historical experience on investment returns that underlies this policy.

Table III

U.S. Capital Markets
Average Annual Return
1926-1988

Domestic Common Stocks	10.0%
Long-Term Corporate Bonds	5.0
Long-Term U.S. Treasury Bonds	4.4
U.S. Treasury Bills	3.5
Inflation	3.1

Source: Ibbotson Associates

The most important aspect of implementing the fund's investment policy is the decision as to how much of the fund's assets are to be placed in various classes of investments (the asset allocation decision). By far the majority of the investment returns are attributable to asset allocation decisions as opposed to the choice of independent management firms or choice of individual securities or investments within an asset class.

Table IV presents ranges for various asset classes as a percentage of the total fund that have been established to guide the asset allocation decision. The table also shows the asset allocation at the end of fiscal year 1989.

Table IV
Teachers' Retirement Trust Fund
Asset Allocation
(as a percent of market value)

Asset Class	Policy Minimum	Policy Maximum	Actual June 30, 1989
Equities	30%	70%	40%
Common Stocks	20	60	34
Domestic	16	48	28
International	4	12	6
Real Estate	4	12	6
Fixed Income	30	70	60
Marketable Securities	18	70	54
Mortgages	0%	12%	6%

Table V presents the asset allocations as of the end of the last five fiscal years. The table shows the increasing emphasis on stocks and long-term corporate bonds, an outgrowth of the investment policy.

Table V
Teachers Retirement Fund
Historical Asset Allocation
(as a percent of market value)

	6-30-85	6-30-86	6-30-87	6-30-88	6-30-89
Real Estate Equities	7.3%	5.7%	6.0%	6.5%	5.8%
Domestic common stocks	16.7	25.0	30.6	26.9	27.6
International common stocks	3.0	6.4	10.2	6.9	6.4
Total Equities	27.0	37.1	46.8	40.3	39.8
International Debt	1.8	-	-	-	-
Corporate Debt	2.9	10.2	9.0	10.9	11.1
Treasury Debt	26.5	27.5	28.8	33.2	32.8
Money Markets	17.4	9.0	6.1	7.7	9.8
Total Marketable Debt	48.6	46.7	43.9	51.8	53.7
Mortgages	24.4	16.2	9.3	7.9	6.5
TOTAL FUND	100.0%	100.0%	100.0%	100.0%	100.0%

The Economy in Fiscal Year 1989

At the end of fiscal year 1989, the U.S. economy began to show evidence of a slowdown as it responded to the gradual tightening of monetary policy undertaken by the Federal Reserve Bank since the spring of 1988. The economic data pointed to weak consumer spending on autos and housing, flat industrial productivity, and a rise in the exchange value of the U.S. dollar, which slowed export growth.

A slowing economy was also reflected in the fixed income market. During the second half of fiscal year 1989, long-term U.S. Treasury yields fell to 8 percent from previous levels of over 9 percent. The strength in the fixed income market demonstrated the anticipation by investors of slow economic growth, stable inflation and low interest rates. Over the course of the whole fiscal year, long-term Treasury bond prices rose 7.4 percent and long corporate bond prices rose by 5 percent.

The stock market experienced a major advance during fiscal year 1989, especially in the last quarter when it posted an 8.8 percent return on the Standard & Poor's 500 index. However, takeover stocks were among the strong performers , indicating an element of speculation in the market's rise. For the year as a whole, the Standard & Poor's 500 index enjoyed an 20.5 percent increase. On the international front, the strength of the U.S. dollar adversely affected the returns on international equities. The Europe, Australia, Far East ("EAFE") index returns were -6.2 percent for the last quarter, reducing the total return for the fiscal year to 9.5 percent.

Investment Returns

Table VI presents the annual rates of return for the fund by asset class for each of the last five fiscal years and for the entire period. An auditor's opinion accompanies the table. Table VII presents the same information for individual investment adviser firms managing fund assets invested in common stocks. The rates of return are total returns. Total returns include unrealized changes in market value as well as income earned and realized gains or losses.

Table VI indicates that the rate of return on domestic common stocks during the five year period barely exceeded the returns on marketable debt securities. This is quite different from the general historical experience shown in Table III. As indicated by that table, over a long time span, stock returns have exceeded fixed income returns (bonds and bills) by 5 to almost 7 percent per annum. The fund's recent experience in this regard is largely due to the unique historical occurrence of record high inflation rates in the late 1970's and early 1980's. The high inflation caused the Federal Reserve to push interest rates to record levels in order to squelch runaway prices. In the latter part of the 1980's, as inflation and interest rates receded from these record highs, bond prices soared, producing record high returns.

In the future, a return to the more normal situation of significantly higher returns on stocks could be expected. For one thing, interest rates cannot fall below zero, so there is a limit to the return on bonds due to market appreciation. In addition, inflation and interest rates are not expected to again reach anytime soon the record levels that made extraordinary bond returns possible.

KPMG Peat Marwick

Certified Public Accountants

Peat Marwick Main & Co.
601 West Fifth Avenue
Suite 700
Anchorage, AK 99501

Independent Auditors' Report

State of Alaska
Department of Revenue
Division of Treasury:

We have audited the accompanying schedule of total rates of return for the Teachers' Retirement Trust Fund (Fund), covering marketable debt securities, domestic common stocks, international common stocks, real estate equities and mortgage loans for the period from July 1, 1984 to June 30, 1989 and for each of the years in the five year period ended June 30, 1989. This schedule is the responsibility of the Fund's management. Our responsibility is to express an opinion on this schedule based on our audit.

We conducted our audit in accordance with standards established by the American Institute of Certified Public Accountants. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the schedule is free of material misstatement. An audit includes examining, on a test basis, the underlying data from which the total rates of return are calculated, as well as the calculations themselves. An audit also includes assessing the basic assumptions used by management in making the calculations and the overall presentation of the total rates of return. We believe that our audit provides a reasonable basis for our opinion.

In our opinion, the schedule referred to above presents fairly, in all material respects, the total rates of return for the Teachers' Retirement Trust Fund for the period from July 1, 1984 to June 30, 1989 and for each of the years in the five year period ended June 30, 1989, computed in accordance with the measurement and disclosure criteria set forth in the notes to the schedule.

Peat Marwick Main & Co.

November 16, 1989

Table VI

STATE OF ALASKA, DEPARTMENT OF REVENUE
DIVISION OF TREASURY
TEACHERS' RETIREMENT TRUST FUND

Schedule of Total Rates of Return

Period July 1, 1984 to June 30, 1989

	Year ended June 30					Annual average for five years ended June 30,
	1985	1986	1987	1988	1989	1989
Marketable securities:						
Equity:						
Domestic common stocks	29.7%	37.5%	19.6%	(7.3)%	17.6%	15.3%
International common stocks	17.7	91.8	38.9	(4.9)	9.4	25.2
Total equity	28.0	46.1	23.6	(6.8)	16.0	17.1
Debt	30.1	24.2	4.3	7.5	14.3	15.2
Total marketable securities	29.6	31.3	12.2	.9	15.0	15.9
Real estate:						
Equities	9.6	8.1	5.3	6.3	8.1	7.5
Mortgage loans	12.9	12.1	8.6	11.7	12.5	11.7
Total real estate	12.1	11.1	8.0	9.0	10.4	10.3
Total Fund investments	23.2	25.5	11.4	2.1	14.4	14.6
Equity investments (note 3)	21.7	36.9	20.8	(5.1)	14.7	15.1
Fixed income investments (note 3)	23.7	20.5	5.1	8.1	14.1	14.4
Total Fund investments	23.2%	25.5%	11.4%	2.1%	14.4%	14.6%

See accompanying notes to schedule of total rates of return.

STATE OF ALASKA, DEPARTMENT OF REVENUE
DIVISION OF TREASURY
TEACHERS' RETIREMENT TRUST FUND

Notes to Schedule of Total Rates of Return

Period July 1, 1984 to June 30, 1989

(1) General

The Teachers' Retirement Trust Fund (Fund) represents the investment portfolio of the State of Alaska Teachers' Retirement System (TRS). Investments of the Fund include marketable debt securities, domestic common stocks, international common stocks, real estate equities and mortgage loans.

The market values utilized in the total rates of return calculations are determined as follows:

Marketable Securities

Determined at the end of each month by the custodial agents. The agents' determination of market values involves, among other things, using pricing services or prices quoted by independent brokers.

Mortgage Loans

Determined by adjusting purchased yields to the current secondary mortgage market conditions established by the MGIC Investment Corporation. Market value has also been reduced by a loan loss provision for uncollectible problem loans.

Real Estate Equities

Valued by the various companies managing the funds.

(2) Calculation of Total Rates of Return

The Fund uses a dollar-weighted rate of return formula described below, which is generally referred to as an internal rate of return formula.

The total rate of return represents the annually compounded rate of return that discounts the year-end market value of an investment portfolio and that year's cash flows in and out of the portfolio back to the portfolio's market value at the beginning of the year.

The historical total rates of return may not be indicative of future total rates of return. Attention should be drawn to the fact that other performance calculation methods may produce different results and that comparisons of investment results should consider qualitative circumstances and should be made only to portfolios with generally similar investment objectives.

(3) Equity Investments and Fixed Income Investments

Included as equity investments are domestic and international common stocks and real estate equities. Included as fixed income investments are marketable debt securities and mortgage loans.

Table VII
Teachers' Retirement Trust Fund
Common Stock Managers
Total Rates of Return

Manager	Fiscal Year 1985	Fiscal Year 1986	Fiscal Year 1987	Fiscal Year 1988	Fiscal Year 1989	Fiscal Years 1985-89
Domestic Common Stocks						
Alger Management	28.9%	46.0%	9.3%	-10.9%	22.1%	17.5%
Invesco Capital Management	29.0	29.6	19.5	- .2	14.7	18.0
Lehman Ark Management	30.2	34.6	26.2	-3.8	19.3	20.5
IDS	-	-	-	-	27.9	27.9
Miller, Anderson & Sherrerd	-	-	-	-	27.8	27.8
Loomis, Sayles	-	-	-	-	31.3	31.3
United Capital Management	-	-	-	-	22.1	22.1
State Street Bank & Trust	-	-	-	-	21.3	21.3
Total	29.3	35.9	18.7	-4.6	17.6	18.5
International Common Stocks						
Citibank N.A.	18.4	92.7	40.8	-7.3	8.0	26.3
Morgan Guaranty Trust Co.	14.4	94.3	38.3	-3.4	10.7	26.9
Total	16.4	93.5	39.6	-5.3	9.4	26.6
Total Common Stock Managers	27.4%	44.7%	22.9%	-4.7%	16.0%	20.1%

Source: *Treasury Division, Alaska Department of Revenue. Returns are time-weighted rates of return.*

The performance of the marketable securities classes of the fund's investments can be gauged by comparison to market indices contained in Table VII and from the percentile rankings in comparison with other large pension funds contained in Table IX.

As seen in Table IX, the rankings of domestic and international common stock investments, at the 53rd and 57th percentiles respectively, have averaged a bit below the median performance (50th percentile) of other large funds over the five year period. Moreover, rates of return for common stocks, as shown in Table VI, have lagged behind the market averages shown in Table VIII. In part this lag is attributable to the stage of the stock market cycle embraced by the five year period under consideration. The common stock returns for the fund include the money market rates on the cash normally held by most active stock managers. The cash allows them to take advantage of buying opportunities. In contrast, the market indices reflect a fully invested position at all times. This makes it more difficult for active managers to beat the market during an up leg of a cycle, but easier on the down side. Holding cash is also a handicap in general over long time spans since the market's general trend is to increase in value over time as economic growth takes place.

Several changes have been initiated in the management of domestic common stocks that may improve performance in the future. At the beginning of fiscal year 1989, a domestic common stock index fund managed by State Street Bank & Trust was initiated. Halfway through the year, four new active managers were added. The markedly higher rates of return for the new active managers shown in Table VII should be viewed with the recognition that stock markets did much better in the second half than in the first half. The Standard & Poor's 500 increased at an annual rate of 35.8 percent in the second half compared to 6.9 percent in the first half. Another change was the negotiation of performance-based fees for all active managers except Lehman Ark Management and their initiation in January, 1989.

With respect to international common stock, a competitive selection of managers is expected to be undertaken in 1990 after first establishing by contract a custodian bank for international investments. The custodian bank is necessary to consider non-bank investment adviser firms as managers, since such firms do not provide custody services.

During the last five fiscal years, performance of investments in marketable debt securities has been in the upper third of the rankings, on average, as indicated by Table IX. The table also indicates that performance for total marketable securities has been above the median, on average, during the five year period.

A significant factor in the marketable debt and overall marketable securities performance is the longer than average maturities of debt instruments held by the fund. Table X compares the average maturity of the fund's marketable debt to the median of state retirement funds over $500 million in size.

Table VIII
Annualized Rates of Return for Market Indices

Index	Fiscal Year 1985	Fiscal Year 1986	Fiscal Year 1987	Fiscal Year 1988	Fiscal Year 1989	Fiscal Years 1985-89
Standard & Poor's 500 Stock Index	31.0%	35.9%	25.2%	-6.9%	20.5%	20.1%
Europe, Australia, Far East Stock Index	23.3	89.0	58.3	4.1	9.5	33.3
Salomon Brothers Broad Investment - Grade Bond Index	29.9	19.9	5.6	8.1	12.2	14.8
91-Day U.S. Treasury Bills	9.0%	7.1%	5.6%	5.5%	7.8%	7.0%

Table IX
Teachers' Retirement Trust Fund Rankings of Investment Returns (percentile)

Asset Class	Fiscal Year 1985	Fiscal Year 1986	Fiscal Year 1987	Fiscal Year 1988	Fiscal Year 1989
Domestic Common Stock	63	38	90	22	55
Marketable Debt Securities	61	1	79	3	18
Total Domestic Marketable Securities	45	23	66	57	30
International Common Stock	52	44	64	52	73

Source: *International common stock comparisons provided by The World Markets Company. Domestic common stock comparisons provided by SEI against state retirement funds in excess of $500 million in size.*

Note: *1 is the highest rank; 100 is the lowest.*

Table X
Marketable Debt Securities
Average Maturity
(years)

Fiscal Year End	Teachers' Retirement Trust Fund	Median for Large State Retirement Funds
1985	9.3	9.8
1986	11.2	9.3
1987	17.4	9.4
1988	16.5	9.5
1989	13.3	9.5

Source: SEI Corporation

Real estate equities have produced the lowest returns for the fund during the period 1985-89. In the late 1970's and early 1980's, strong inflation resulted in rapid appreciation of real estate, as it did for other hard assets. Combined with extraordinary tax incentives for real estate investments, the run-up in real estate prices produced very high returns to investors. Tax-exempt investors such as pension funds could fully benefit from this market movement, as well as private investors. Tax-exempt institutions could carve out a share of the tax benefits through joint ventures with taxable parties, in addition to benefiting from the general bidding up of property values by taxable investors.

For institutional investors such as pension funds which would hold real estate as part of a portfolio of various classes of investments, real estate also offered the attraction of increasing diversification. Diversification into real estate was particularly desirable because real estate rates of return have had a very low correlation with returns from other classes of investments. This meant much less volatility in returns for the total portfolio. So overall, real estate seemed to be the perfect investment -- offering the highest returns but also lowering risk more than other investments.

These powerful stimuli led to excessive amounts of capital being made available for financing real estate, rampant speculative construction, and ultimately the severest overcapacity the industry has seen. The inevitable downturn in the cycle was acutely more pronounced as a result of the Tax Reform Act of 1986 which eliminated or strictly curtailed most of the tax benefits for real estate investments.

The supply of real estate is highly inelastic in the short-run, due to its long lead times for construction and its long duration once constructed before it's finally "consumed" and demolished. Thus, real estate cycles are among the longer of economic cycles. Even in the face of the current prolonged economic expansion, real estate markets remain difficult. Eventually, real estate returns should improve, but absent the return of a highly inflationary environment and liberal tax incentives, real estate is not expected to yield the heady returns that formerly characterized such investments.

Table XI contains the returns for real estate equity managers for the last five years while Tables XII and XIII show the diversification of the managers' real estate investments geographically and by property type.

Table XI
Teachers' Retirement Trust Fund
Real Estate Equity Managers
Total Rates of Return

Manager	Fiscal Year 1985	Fiscal Year 1986	Fiscal Year 1987	Fiscal Year 1988	Fiscal Year 1989	Fiscal Years 1985-89
Aetna Capital Management	7.6%	8.2%	6.1%	5.1%	5.8%	6.6%
John Hancock Properties	6.6	6.3	-2.2	-1.3	12.8	4.3
Equitable Real Estate Investment Management	11.2	8.4	8.0	6.5	8.0	8.4
Sentinel Real Estate Corporation	9.0	10.0	6.1	7.3	6.5	7.8
J.M.B. Institutional Realty Corporation	7.8	8.8	8.8	7.0	11.6	8.8
J.P. Morgan Investment Management	15.7	13.3	13.2	9.1	9.3	12.1
Karsten Realty Advisors	.4	7.5	8.4	10.1	6.7	6.6
Prudential - PRISA	9.7	5.5	-	-	-	7.6
Total Real Estate Managers	**9.0%**	**8.4%**	**6.6%**	**6.3%**	**8.2%**	**7.7%**

Source: Treasury Division, Alaska Department of Revenue. Returns are time-weighted rates of return.

Table XII
Public Employees' and Teachers' Retirement Trust Funds
Real Estate Equities
Geographical Diversification
(percent of market value as of March 31)

Manager or Fund	Year	East					South					Midwest					West				
		85	86	87	88	89	85	86	87	88	89	85	86	87	88	89	85	86	87	88	89
Aetna 61%		18%	19%	20%	13%	17%	20%	19%	18%	17%	17%	10%	7%	6%	6%	5%	52%	55%	56%	64%	
Equitable		27	30	32	29	33	31	29	27	29	26	19	17	17	16	15	23	24	24	26	26
John Hancock [1]		30	29	30	31	22	22	22	23	22	29	22	23	22	22	12	26	26	25	25	37
J.M.B Fund III/IV		24	22	12	21	30	28	27	34	26	18	29	30	24	23	27	19	21	30	30	25
Sentinel		5	1	1	1	3	40	53	52	50	49	27	15	12	12	12	28	31	35	37	36
Karsten		0	0	0	0	0	18	10	5	5	5	0	0	0	0	0	82	90	95	95	95
J.P. Morgan		52	57	54	55	62	30	27	25	23	19	18	16	20	21	18	0	0	1	1	1
Weighted average of Alaska Funds		22	23	21	21	24	27	27	26	25	23	18	15	14	14	13	33	35	38	40	40
Weighted average 31% of all open end funds in Evaluation Associates, Incorporated database.		26%	28%	28%	27%	30%	25%	26%	26%	25%	25%	15%	14%	15%	15%	14%	34%	32%	31%	33%	

Notes

Table XIII
Public Employees' and Teachers' Retirement Trust Funds
Real Estate Equities
Diversification by Property Type
(percent of market value as of March 31)

Manager or Fund	Year	Office					Retail					Industrial					Residential					Hotel				
		85	86	87	88	89	85	86	87	88	89	85	86	87	88	89	85	86	87	88	89	85	86	87	88	89
Aetna		43%	46%	45%	46%	40%	21%	18%	19%	20%	24%	28%	24%	23%	24%	21%	1%	6%	7%	7%	11%	7%	6%	7%	3%	4%
Equitable		40	42	40	45	43	36	36	36	33	38	14	14	15	14	13	0	0	0	0	1	10	8	8	8	5
John Hancock [1]		39	35	34	34	64	12	11	10	11	6	40	40	39	39	21	6	11	14	14	6	3	3	3	2	3
J.M.B. Fund III/IV		45	32	27	35	43	55	68	73	65	53	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0
Sentinel		11	9	8	7	7	5	3	8	10	10	3	10	2	2	2	81	78	82	81	81	0	0	0	0	0
Karsten		18	5	5	5	4	82	79	80	81	83	0	16	15	14	13	0	0	0	0	0	0	0	0	0	0
J.P. Morgan		55	55	51	47	50	36	38	36	35	30	6	5	11	16	18	0	0	0	0	0	3	2	2	2	2
Weighted average of Alaska Funds		33	29	29	30	30	29	27	37	35	34	13	15	10	10	8	14	26	24	23	28	3	2	2	1	1
Weighted average of all open end funds in Evaluation Associates, Incorporated database.		48%	47%	44%	44%	41%	21%	22%	23%	23%	26%	17%	16%	17%	16%	15%	5%	8%	10%	10%	12%	8%	7%	6%	7%	6%

Notes

[1] *John Hancock: used 12-31-88 information for 1989*

The total return measurement for real estate mortgage investments in Table VI is of limited usefulness. These investments are not readily marketable and they are expected to be held to maturity. In this case, the realized rates of return may be more pertinent. Realized returns include the interest on mortgage loans and any realized gains or losses on disposition of foreclosed properties but exclude changes in market value. Table XIV shows that the realized rates for mortgages have been declining.

In part, this is due to the fact that interest rates have declined from the early 1980's. This resulted in lower mortgage returns due to lower interest rates on new purchases. More importantly, since new purchases stopped essentially in fiscal year 1986, heavy payoffs of mortgage loans made at high rates in the early 1980's pushed the average yield down on the remaining mortgage portfolio. Most of the payoffs came from refinancings with other lenders. Table XV reflects these activities.

Table XIV
Teachers' Retirement Trust Fund
Mortgage Loans
Realized Rates of Return

Fiscal Year	Realized Return
1985	12.9%
1986	11.2
1987	13.0
1988	10.3
1989	9.2
1985-89	11.7%

Mortgage returns have also been hurt since fiscal year 1986 by heavy delinquencies and defaults resulting from the Alaska recession. The mortgage loans have been highly concentrated inside Alaska. At June 30, 1989, only 6.9 percent were secured by property outside Alaska.

Tables XV and XVI show the history of the fund's delinquent loans and real estate owned. The percentages for delinquent loans and real estate owned are magnified by the fact that the mortgage loan portfolio has been shrinking, as shown in Table XVII, with the shrinkage coming from good, commercially-viable loans paying off while the bad loans remain with the fund. Nevertheless, liquidation of real estate owned, with the exception of one property, has resulted to date in a net gain for the fund, disregarding the opportunity costs of invested funds. This is shown in Table XVIII.

As the 88 properties currently owned by the fund and additional foreclosures of delinquent loans are disposed of, losses are expected overall, given the current state of the Alaska economy. The current estimate of loss is reflected in the $5,417,000 loan loss allowance applied against the value of mortgage assets on the fund's books.

Table XV
Public Employees' and Teachers' Retirement Trust Funds
Mortgage Loan Activity

Fiscal Year	Number of Mortgage Purchases	Number of Mortgage Payoffs	Number of Delinquencies and Defaults at June 30[1]
1982	935	NA	NA
1983	772	280	82
1984	813	707	75
1985	725	508	127
1986	328	1,145	231
1987	7	1,237	406
1988	0	255	491
1989	0	160	556

Note:
[1] *Loans 60 or more days delinquent plus real estate properties owned ("REO").*

Table XVI
Teachers' Retirement Trust Fund
Mortgage Loan Delinquencies and Real Estate Owned (REO)[1]
($ millions)

June 30	60 Days or More Delinquent	REO	Total Delinquencies and REO	60 Days or More Delinquent	REO	Total Delinquencies and REO
1983	2.5%	1.0%	3.5%	$4.2	$1.8	$6.0
1984	1.6	1.0	2.6	2.9	1.9	4.8
1985	3.1	1.2	4.3	6.2	2.4	8.6
1986	7.5	1.2	8.7	12.7	2.1	14.8
1987	19.7	5.1	24.7	22.9	5.9	28.8
1988	22.9	8.9	31.7	23.6	9.2	32.7
1989	29.2%	12.0%	41.2%	$27.3	$11.2	$38.6

Note:
[1] *Percentages are the percentages of total loans and REO.*

Table XVII
Teachers' Retirement Trust Fund
Mortgage Asset Allocations at Cost
($ millions)

June 30	Total Fund	Mortgages	Mortgage as % as Total Fund
1980	$318.4	$123.1	38.7%
1981	387.0	134.9	34.2
1982	464.3	156.2	33.7
1983	561.2	169.8	29.8
1984	689.7	185.4	26.9
1985	811.8	201.8	24.9
1986	987.2	169.7	17.2
1987	1,178.2	116.4	9.9
1988	1,261.1	103.0	8.2
1989	$1,385.2	$93.7	7.0%

Table XVIII
Teachers' Retirement Trust Fund
Liquidation of Real Estate Owned ("REO")

Fiscal Year	# REO's Sold	Gain (Loss)
1981	5	$64,957.31
1982	5	(26,602.30)
1983	4	93,446.21
1984	6	29,590.55
1985	4	73,507.64
1986	1	(1,184,604.54)
	2	(37,264.77)
1987	8	107,108.92
1988	11	(256,122.10)
1989	15	(5,398.86)
	61	$ (1,130,584.22)

Importance to Beneficiaries of Investment Policy and Returns

Investment income is of paramount importance to a pension plan. A study by Frank Russell Co. indicates that, over the life of a defined benefit plan, at least 80 percent of the benefits paid come from investment income, and only 20 percent from contributions. For any given participant, about 60 percent of the investment income accrues after retirement when contributions have ceased.

The current importance of investment income to the fund and its beneficiaries can be seen in the fact that investment income totaled $561.2 million for the fiscal period 1985 to 1989 while assets grew $737.8 million in book value. Total investment income exceeded contributions as a source of growth.

Table XIX shows the growth of the Teachers' Retirement Trust Fund for the period and the sources of that growth. Noteworthy is the fact that contributions have declined while benefits have increased. This has been possible due to total returns averaging 14.6 percent per annum over the period, well in excess of the 9 percent[1] on which contributions are based.

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[1] *The actuarial rate of return is technically calculated on a different basis than the total return concept. The actuarial rate involves valuation of fixed income assets at cost rather than market and determines market values using a three year moving average of the ratio of market to book value.*

Table XIX
Teachers' Retirement Trust Fund
Sources of Asset Growth
($ millions)

Fiscal Year	Contributions[1]	Benefits	Net Contributions	Ordinary Income	Realized Capital Gains	Total Income	Change in Unrealized Capital Gains	Total Return	Year End Assets at Book	Year End Assets at Market [2]
1984									689.7	659.6
1985	94.9	37.8	57.1	74.2	.6	74.8	77.8	152.6	811.8	866.3
1986	98.0	42.9	55.1	82.1	36.4	118.5	103.6	222.2	993.3	1,126.6
1987	88.1	50.8	37.3	74.7	69.6	144.3	-15.7	128.6	1,174.9	1,295.2
1988	88.9	66.0	22.9	86.1	12.5	98.6	-72.4	26.2	1,298.1	1,345.9
1989	76.3	73.4	2.9	98.9	26.1	125.0	68.6	193.7	1,427.5	1,544.0
Total	**446.2**	**270.9**	**175.3**	**416.0**	**145.2**	**561.2**	**161.9**	**723.3**		

Notes:

[1] *Net of refunds.*

[2] *Mortgages at cost for fiscal years 1985 and 1986.*

Sources:

1. *Comprehensive Annual Financial Report; Alaska Department of Administration; June 30, 1989.*
2. *Public Employees' Retirement Fund, Teachers' Retirement Fund, Annual Financial Report; Division of Retirement and Benefits; June 30, 1988 and June 30, 1985.*
3. *Audited Financial Statements, Alaska Department of Revenue for fiscal years 1986-1989.*
4. *Monthly Financial Reports; June 30, 1985; Treasury Division; Alaska Department of Revenue.*

Also noteworthy is the fact that net contributions (i.e., contributions minus benefits) have dwindled to almost nothing. Should a significant portion of investment income be required in the future to meet benefit payments, there would be important implications for investment policy. Asset allocations could then be expected to favor fixed income investments more than would otherwise be the case, in order to lend greater stability to cash flows. However, as discussed under the section on investment policy, actuarial projections do not indicate a likelihood of significant reliance on investment income to meet benefit payments.

The main concern of beneficiaries in regard to the fund is whether the size of the fund is keeping up with the growth in the present value of the benefits likely to be paid in the future. Table XX presents two measures of this key relationship.

Table XX
Teachers' Retirement System
Funding Ratios

Fiscal Year End	Actuarial Ratio [1]	GASB Statement No. 5 Ratio [2]
1977	63.3%	NA
1978	66.9	NA
1979	71.9	NA
1980	66.9	NA
1981	79.1	NA
1982	76.9	NA
1983	79.7	NA
1984	83.9	NA
1985	81.6	83.1%
1986	93.2	102.3
1987	101.2	107.6
1988	98.8%	100.6%

Sources:

[1] *Actuarial Valuation Report; William M. Mercer Meidinger Hansen, Inc. various years*
[2] *Independent Auditor's Report, Teachers' Retirement System; June 30, 1989*

The ratios in Table XX are a comparison of the Teachers' Retirement Trust Fund assets to the present value of benefits projected to be payable in the future. The difference between the ratios is that the Governmental Accounting Standards Board ("GASB") ratio values the assets as of the year end while the actuary uses a three year moving average.

Within these last five years, the system has achieved full (or more than full) funding for the first time since its inception. When the retirement plan was initiated, a funding gap was created by credits granted for employees' service prior to the plan's start-up. The other factors that create or perpetuate a funding gap are retroactive benefit increases, actual experience less favorable than actuarial assumptions, and any deficiency in payment of actuarially required contributions.

Achievement and maintenance of full funding is the best assurance beneficiaries have of receiving the benefits to which they are entitled. At least one court[2] has held that employees have a vested property right to amounts deposited in a retirement trust fund. In the future, investment policy and returns will be ever more critical to maintenance of full funding as investment returns loom ever larger in the flow of funds. Table I projects investment earnings to constitute almost 75 percent of the total inflow to the fund by fiscal year 2003, compared to approximately 60 percent in fiscal year 1989.

Investment returns in excess of funding requirements lead to either increased benefits or reduced employer contributions, usually both. Absent enactment of legislation increasing statutory benefits under the plan, retired employees still can benefit directly from high investment returns through Post Retirement Pension Adjustments ("PRPA's"). These are increases in retirement annuity payments granted to offset the effects of inflation. They are to be granted each year by the Commissioner of Administration if the condition of the Teachers' Retirement Trust Fund permits. Table XXI traces the PRPA's that have been granted.

Table XXI
Teachers' Retirement System
Post Retirement Pension Adjustments ("PRPA's")

July 1	PRPA
1967	1.5%
1968	1.5
1969	1.5
1970	1.5
1971	1.5 (compounded)
1972	1.5 (compounded)
1973	1.5 (compounded)
1974	3.0 (compounded)
1975	none
1976	none
1977	10.0
1978	4.0
1979	4.0
1980	4.0
1981	4.0
1982	4.0
1983	none
1984	4.0
1985	4.0
1986	4.0
1987	none
1988	4.0%

[2] *West Virginia Supreme Court. 1988. Dadisman V. Moore, et al (Case No. 18343). Charleston, West Virginia.*

Beyond the use of high investment returns to augment benefits, their use to reduce employer contributions can in some ways be seen to be of benefit to employees. Lower contributions can be expected to increase the willingness and ability of employers to make the required payments. A reduced pension burden on employers increases the security of benefits being paid. Of course, greater security could be had by leaving the amounts in the fund to maintain an overfunded status. Also, the Constitutional obligation of employers to provide the benefits makes the question of security less compelling. This is especially so for employers with the power of taxation. If nothing else, reduced contributions may increase the possibility of eventual statutory amendments to provide greater benefits.

Table XXII displays employer contribution rates for the system since 1980. The fiscal year 1991 rate is only about two-thirds of the rate in the peak year of fiscal year 1985. Rates are influenced by many other factors besides investment earnings. The difference between the 1991 rate and the peak rate in 1985 would represent a savings of over $20 million if applied to the most recent covered payroll reported in the System's financial statements.

Table XXII
Teachers' Retirement System
Employer Contribution Rates [1,2]

Fiscal Year	Percent of Payroll	Fiscal Year	Percent of Payroll
1980	14.90%	1986	17.76
1981	15.74	1987	13.76
1982	16.84	1988	13.76
1983	16.90	1989	11.63
1984	17.42	1990	11.64
1985	17.96	1991	12.27%

Notes:

[1] Combined rate for employer and State match.

[2] Changes in actuarial methods and assumptions for the years shown have been as follows:

The actuarial funding method for the years through June 30, 1984 was attained age normal. Effective July 1, 1984, the Plan adopted the projected unit credit actuarial funding method.

Effective July 1, 1980, the plan adopted new actuarial assumptions. The assumed rate of earnings was increased from 6% to 8% per year. The salary increase assumption was changed from 6% per year until age thirty-nine and 5% per year thereafter to 8% for the first five years of employment and 7% thereafter. Health care cost inflation was set at 8%. Turnover and disability assumptions were revised based upon actual experience in 1980 through 1981.

Effective July 1, 1986, the plan adopted new actuarial assumptions. Actuarial funding surpluses are amortized over five years rather than twenty-five years. The assumed rate of earnings was increased from 8% to 9% per year. The salary increase assumption was lowered to 6.5% per year for the first five years of employment and 5.5% per year thereafter. Health care cost inflation was increased to 9%. Turnover and disability assumptions were revised based on actual experience in 1981 through 1985.

The amortization period for the unfunded accrued benefit liability was changed from thirty years to twenty-five years effective July 1, 1981.

Source: Actuarial Valuation Reports, William M. Mercer Meidinger Hansen, Inc.

One sense of the scope of the beneficiaries' interests at stake can be gained from the size of the Alaska retirement funds under management by the Department of Revenue in comparison to other tax-exempt funds. Table XXIII shows the ranking of the combined Public Employees' and Teachers' Retirement Trust Funds relative to the assets of other tax-exempt funds.

Table XXIII
Tax-Exempt Asset Rankings

Type of Fund	Number of Funds Larger Than Alaska Retirement Funds		Number of Funds Smaller Than Alaska Retirement Funds
Corporate Pension Funds	34		9293
Public Pension Funds	37		506
Union Pension Funds	4		868
Endowments	2	(Alaska just ahead of Harvard)	492
Foundations	1	(Ford Foundation)	593

Source: The Money Market, Directory of Pension Funds and their Investment Managers, 1989, McGraw-Hill.

One of the most important duties of the Commissioner of Revenue -- as a result of the fund's trust character, the scale of its assets, the fund's heavy and growing reliance on investment returns, and the importance of superior returns for increased security and benefits for beneficiaries -- is the determination of investment policy and the expert implementation of that policy in the interest of the fund's beneficiaries. This report is one means of assuring the performance of those duties. An informed system membership may be the best safeguard of beneficiaries' interests over the long run.

Supplementary Fiscal Year 1989 Information

Appended are three schedules containing supplementary information on the Teachers' Retirement Trust Fund for the fiscal year ended June 30, 1989. Accompanying the schedules are an independent auditor's report on, and notes to, the schedules.

The Report of Assets shows the amounts that were invested in different types of investments (book value) and their respective market values and expected annual income flows. The fund's equity investments have relatively low income yields because the income estimates do not include the highly variable capital gains which are usually realized annually on those investments. When capital gains are included, equity investments normally have higher total returns than fixed income investments. On June 30, 1989 the fund's market value of $1,544 million exceeded its book value by $116 million and its income from investments, excluding capital gains, is expected to be about $107 million in the current fiscal year.

The second schedule, Reconciliation of the Fund's Book Value for the Fiscal Year, shows sources of the fund's growth in book value during the year. This statement reflects contributions net of benefit payments.

The third schedule, Distribution of Investment Returns by Asset Categories, shows the fiscal year's realized investment returns on each of the different types of investments. Returns on the fixed income investments, which constitute 59 percent of the entire fund, are rather stable and do not vary much from year to year. Equity returns, on the other hand, are highly variable on a year-to-year basis because capital gains can be such an important element of their total returns. This last schedule indicates realized capital gains were the dominant part of common stock returns during 1989. Over the last sixty-two years, capital gains, including unrealized as well as realized gains, have averaged slightly more than half of total returns on common stocks.

The realized rates or return shown in the third schedule are of limited relevance for a fund such as this with a long-term investment horizon. They are included as supplementary information.

KPMG Peat Marwick

Certified Public Accountants

Peat Marwick Main & Co.
601 West Fifth Avenue
Suite 700
Anchorage, AK 99501

Independent Auditors' Report

State of Alaska
Department of Revenue
Division of Treasury:

We have audited and reported separately herein on the financial statements of the Teachers' Retirement Trust Fund (Fund) as of and for the year ended June 30, 1989.

Our audit was made for the purpose of forming an opinion on the basic financial statements of the Fund taken as a whole. The supplementary information included in Schedules 1 through 3 is presented for purposes of additional analysis and is not a required part of the basic financial statements. Such supplementary information on Schedules 1 and 3 has been subjected to the auditing procedures applied in the audit of the basic financial statements and, in our opinion, is fairly stated in all material respects in relation to the basic financial statements taken as a whole. We did not audit the information on Schedule 2 related to contributions received and receivable and, accordingly, do not express an opinion on it.

Peat Marwick Main & Co.

August 26, 1989

Schedule 1

STATE OF ALASKA, DEPARTMENT OF REVENUE
DIVISION OF TREASURY

Teachers' Retirement Trust Fund
Report of Assets
June 30, 1989
(000s omitted)

Assets	Percentage of total book value	Book value	Market value	Annual income estimate	Yield to maturity at book value	Current yield at market value
Equities (external managers):						
Real estate equities	6%	$ 79,340	88,738	4,237	5.34%	4.77%
Domestic common stocks	27	391,992	423,898	16,699	4.26	3.94
International common stocks	7	94,045	98,147	2,925	3.11	2.98
Total equities	40	565,377	610,783	23,861	4.22	3.91
Fixed income (Treasury managed):						
Mortgages	6	88,235	93,826	8,665	9.82	9.23
Corporate debt	11	160,496	169,248	16,290	10.15	9.63
U.S. Treasury debt	31	445,028	501,343	45,170	10.15	9.01
Money market issues	11	150,468	150,889	13,347	8.87	8.85
Total fixed income	59	844,227	915,306	83,472	9.89	9.12
Total investments	99	1,409,604	1,526,089	107,333	7.61	7.03
Cash (interest earning)	-	516	516	44	8.50	8.50
Total investable assets	99	1,410,120	1,526,605	$ 107,377	7.61%	7.03%
Net accruals receivable	1	17,237	17,237			
Contributions receivable	-	158	158			
Total fund assets	100%	$ 1,427,515	1,544,000			

See accompanying notes to supplementary information.

STATE OF ALASKA, DEPARTMENT OF REVENUE
DIVISION OF TREASURY

Schedule 2

Teachers' Retirement Trust Fund
Reconciliation of the Fund's Book Value
Fiscal year ended June 30, 1989
(000s omitted)

			Percentage of book value change
Investment returns:			
Income earned and received	$ 80,482		62.2%
Capital gains realized	26,109		20.2
Total returns received		106,591	82.4
Accrued income receivable	18,441		
Total returns receivable		18,441	
Total investment returns		125,032	14.2
Less investment expenses		(2,632)	(2.0)
Net investment returns		122,400	94.6
Net contributions received		6,906	5.3
Net contributions receivable		158	0.1
Net change in book value		129,464	100.0%
Fund's book value at June 30, 1988		1,298,051	
Fund's book value at June 30, 1989		$ 1,427,515	

See accompanying notes to supplementary information.

Schedule 3

STATE OF ALASKA, DEPARTMENT OF REVENUE
DIVISION OF TREASURY

Teachers' Retirement Trust Fund

Distribution of Investment Returns by Asset Categories at Book Values

Fiscal year ended June 30, 1989
(000s omitted)

Assets	Income received	Gain (loss) realized	Returns received	Income accrued	Total investment returns	Percentage yield on annual average book values
Equities (externally managed):						
Real estate	$ 3,692	-	3,692	-	$ 3,692	4.66%
Domestic common stocks	14,394	27,650	42,044	1,204	43,248	11.68
International common stocks	2,710	4,158	6,868	-	6,868	7.52
Total equities	20,796	31,808	52,604	1,204	53,808	9.95
Fixed income (internally managed):						
Mortgages	7,463	-	7,463	-	7,463	8.01
Other debt issues	52,223	(5,699)	46,524	17,237	63,761	8.75
Total fixed income	59,686	(5,699)	53,987	17,237	71,224	8.67
Total Investment Returns	$ 80,482	26,109	106,591	18,441	$125,032	9.17%

See accompanying notes to supplementary information.

STATE OF ALASKA, DEPARTMENT OF REVENUE
DIVISION OF TREASURY

Teachers' Retirement Trust Fund
Notes to Supplementary Information
June 30, 1989

The Fund

The Teachers' Retirement System is a multiple-employer, cost-sharing, defined-benefit, joint-contributory system established by the State of Alaska for the payment of retirement, disability, health and death benefits to or on behalf of qualified teachers employed by the state, municipalities, school districts, or other political subdivisions of the state. The Teachers' Retirement Trust Fund (Fund) is a separate fiduciary trust fund established by state statutes. The Commissioner of Revenue is the trustee of the Fund and is responsible for the custody of the assets and for investing the Fund in the best financial interests of the beneficiaries.

(1) Summary of Significant Accounting Policies

The accounting and reporting policies for the Fund conform to generally accepted accounting principles. The more significant accounting policies are as follows:

1. Fiscal year figures are for the Fund's fiscal year ending June 30.

2. Net contributions reflect the amounts the Fund received from the Division of Retirement and Benefits and represent the contributions by employees and employers less the amounts of benefits paid or refunded.

3. Dividend income on domestic common stocks is accrued on their ex-dividend dates. Interest income on domestic debt securities is accrued as earned. Interest income is shown net of amortization of premiums and accretion of discounts. Accrued interest purchased is charged against income at the time of acquisition. International dividends and interest are recognized for income purposes upon notification by the custodian bank.

4. Book value is stated at cost except that the book values of marketable domestic debt issues are adjusted for amortization of premiums and accretion of discounts. Gains or losses on the sale of marketable domestic debt issues are determined on a specific lot identification basis, and gains or losses on the sale of shares in the Consolidated Domestic Equities Fund are determined on an average lot basis.

5. Investment management costs are separately charged to the Teachers' Retirement System and are not deducted from operating income at the time income is received.

(Continued)

6. Investments are stated on a trade date (ownership) accounting basis, including unsettled transactions as follows: sold securities at proceeds amounts for both book and market values; purchased securities at cost for book value and at closing market prices for market value. Gains and losses on sold securities are recognized as of the trade date.

Market Value

The market value of marketable securities is determined by the custodial agent on the last business day of each month. Real estate equities are valued by the managing firms. The market value of the mortgage investments is estimated by reference to the current secondary mortgage market conditions as reported by the MGIC Investment Corporation. Their estimate is of limited applicability because of the illiquid status of those investments.

Investments

The Fund's deposits and investments are categorized below pursuant to the Governmental Accounting Standards Board (GASB) Statement No. 3 and GASB Technical Bulletin No. 87-1 to give an indication of the level of safekeeping risk assumed by the Fund at statement date. The Treasury Division does not concur in the interpretation which places international common stock investments under Category 2 rather than Category 1.

Deposits

1. Insured or collateralized with securities held by the state or by its custodian in the state's name.

2. Collateralized with securities held by the pledging financial institution's trust department or custodian in the state's name.

3. Uncollateralized.

Investments

1. Insured or registered for which the securities are held by the state or its custodian in the state's name.

2. Uninsured and unregistered investments for which the securities are held by the broker's or dealer's trust department or agent in the state's name.

(Continued)

STATE OF ALASKA, DEPARTMENT OF REVENUE
DIVISION OF TREASURY

Teachers' Retirement Trust Fund
Notes to Supplementary Information

3. Uninsured and unregistered investments for which the securities are held by the broker's or dealer's trust department or agent not in the state's name.

	Category at book value 1	2	3
		(000s omitted)	
Deposits:			
Cash (interest earning)	$ 516	-	-
Investments:			
U.S. Treasury debt	445,028	-	-
Corporate debt	160,496	-	-
Domestic common stock	391,992	-	-
International common stock	-	94,045	-
Money market issues	150,468	-	-
Mortgages	88,235	-	-
Real estate equities	79,340	-	-
Financial futures	-	-	-
	$ 1,316,075	94,045	-

External Investment Management

Domestic common stocks are assets of the Fund consisting of shares in the Consolidated Domestic Equities Fund currently under external management by contracted managers who have been directed to emphasize domestic corporate common stock investments. International common stocks are assets of the Fund currently under external management by contracted managers who have been directed to emphasize international corporate common stock investments. Real estate equities are assets of the Fund consisting of units or shares in real estate equity funds which are under external contracted management by various companies.

Yields

Yields on United States Treasury issues and Corporate Fixed Income issues reflect weighted average yields-to-maturity based on either cost values or market values. Yields on domestic common stock, international common stock, and money market issues reflect current yields based on either cost values or market values. The yields on mortgages reflect a weighted average yield to a ten year average maturity based on cost values and market values. Yields on real estate equities reflect the annualized realized monthly income as related to book values and market values. The yield on the average annual book value is calculated using the average of the beginning and ending of the year book values.

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STATISTICAL SECTION

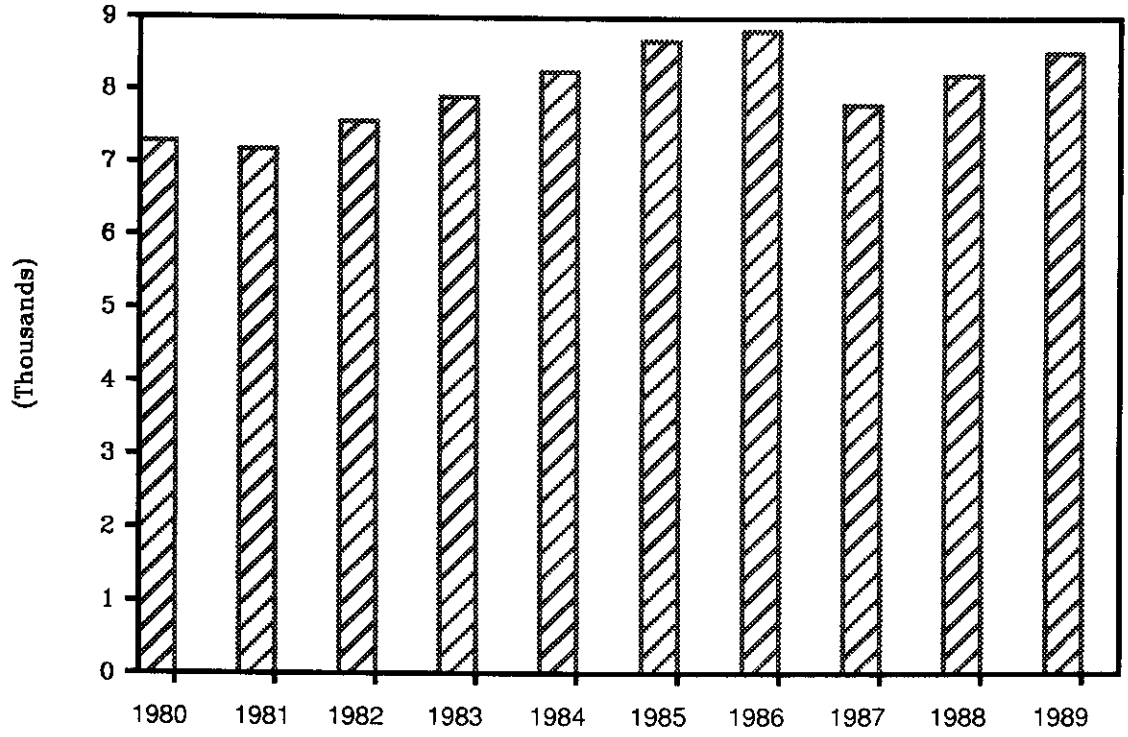
EMPLOYER CONTRIBUTION RATES
FISCAL YEAR 1989

Employer	Percentage
Adak Region School District	11.63%
Alaska Department of Education	
Alaska Gateway School District	
Alaska, University of	
Alaska Geophysical Institute, University of	
Alaska State Legislature	
Aleutian Region School District	S
Anchorage School District	A
Annette Island School District	M
Association of Alaska School Boards	E
Bering Straits School District	
Bristol Bay Borough School District	F
Chatham School District	O
Chugach Region School District	R
Copper River School District	
Cordova School District	A
Craig School District	L
Delta-Greely School District	L
Dillingham School District	
Fairbanks North Star Borough School District	E M P L O Y E R S
Galena School District	
Haines Borough School District	
Hoonah School District	
Hydaburg School District	
Iditarod Area School District	
Juneau Borough School District	
Kake School District	
Kashunamiut School District	
Kenai Peninsula Borough School District	
Ketchikan Gateway Borough School District	
King Cove School District	
Klawock School District	
Kodiak Island Borough School District	
Kuspuk School District	
Lake and Peninsula School District	
Lower Kuskokwim School District	
Lower Yukon School District	

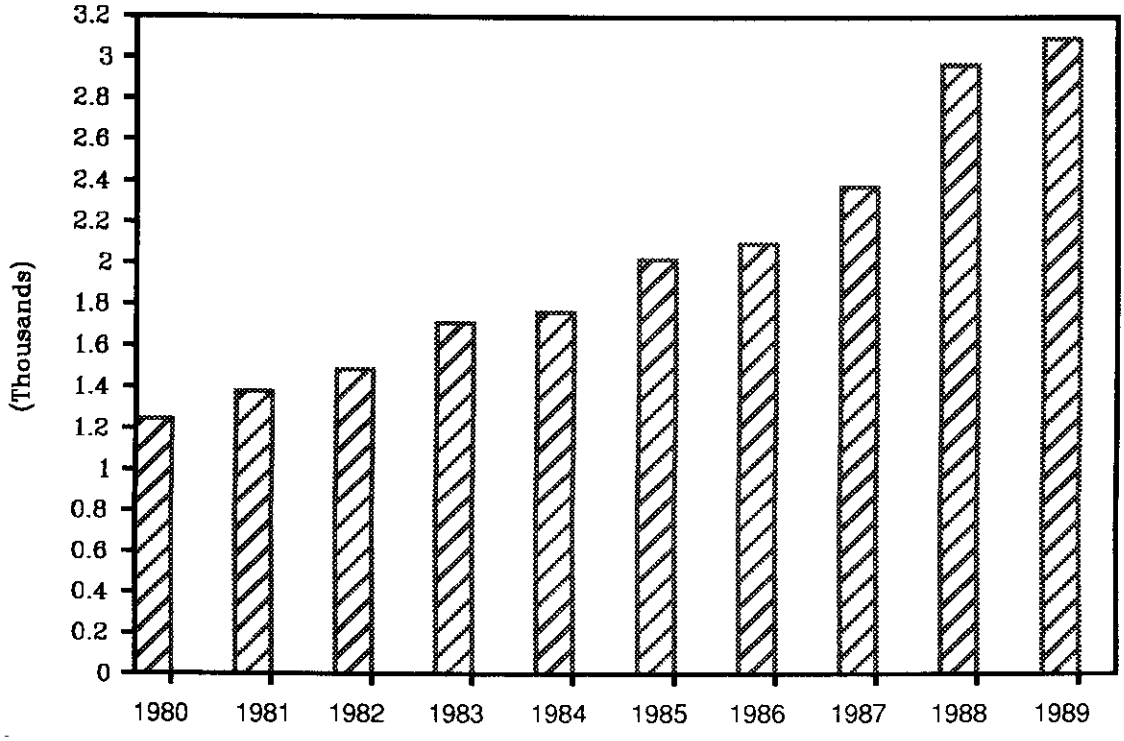
EMPLOYER CONTRIBUTION RATES
FISCAL YEAR 1989

Employer (continued)	Percentage
Matanuska-Susitna Borough School District	11.63%
National Education Association	
Nenana School District	
Nome School District	S
North Slope Borough School District	A
Northwest Arctic School District	M
Pelican School District	E
Petersburg School District	
Pribilof School District	F
Railbelt School District	O
Saint Mary's School District	R
Sand Point School District	
Sitka Borough School District	A
Skagway School District	L
Southeast Island School District	L
Southeast Regional Resource Center	
Southwest Region School District	E
Special Education Service Agency	M
Tanana School District	P
Unalaska School District	L
Valdez School District	O
Wrangell School District	Y
Yakutat School District	E
Yukon Flats School District	E
Yukon-Koyukuk School District	S
Yupiit School District	

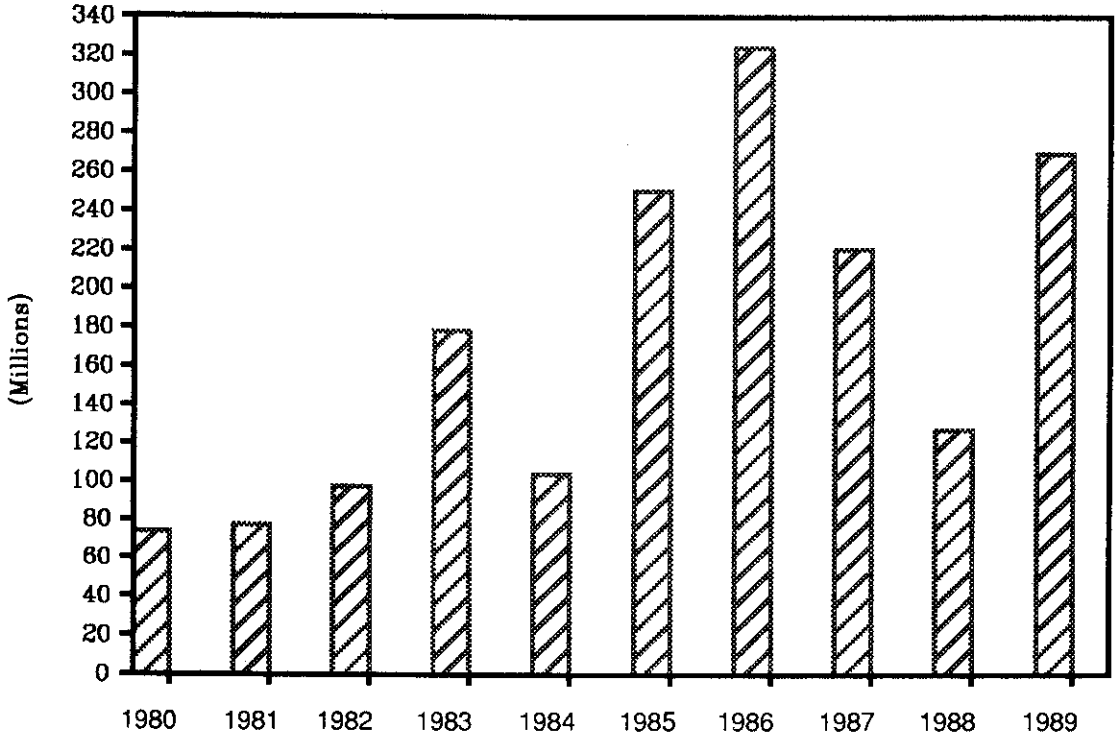
ACTIVE MEMBERS
As of June 30



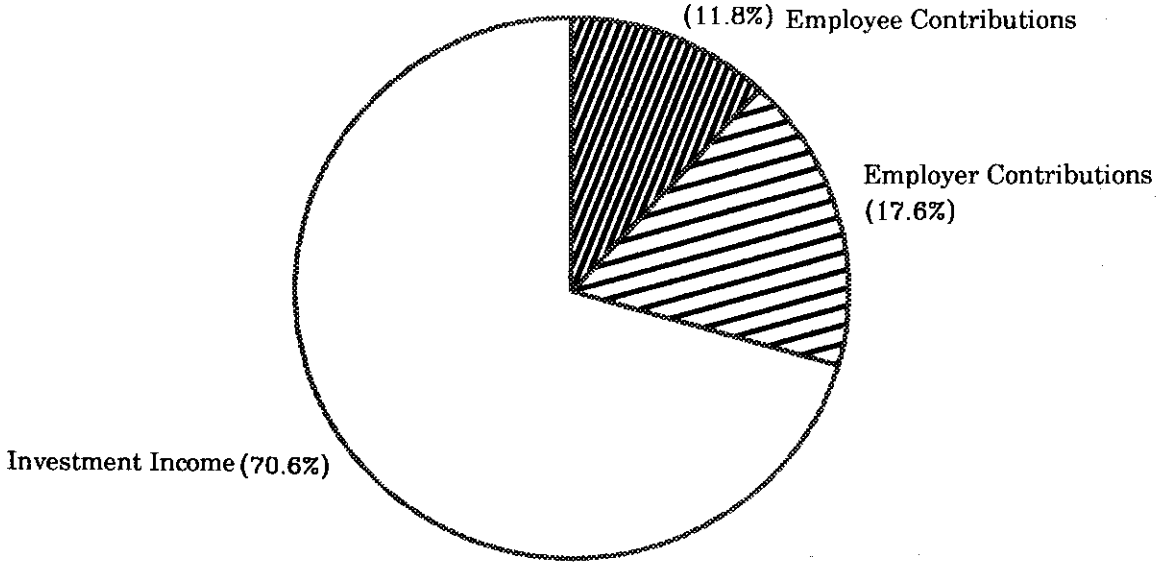
RETIREES AND BENEFICIARIES
As of June 30



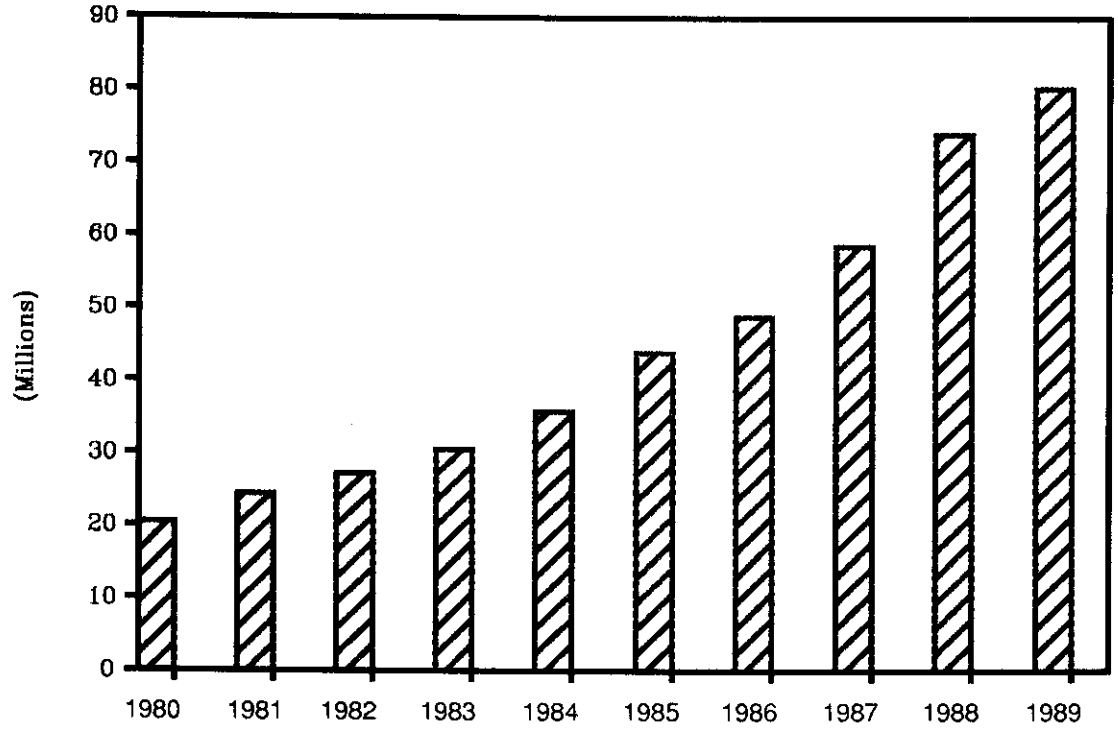
REVENUES
10 Year Comparison



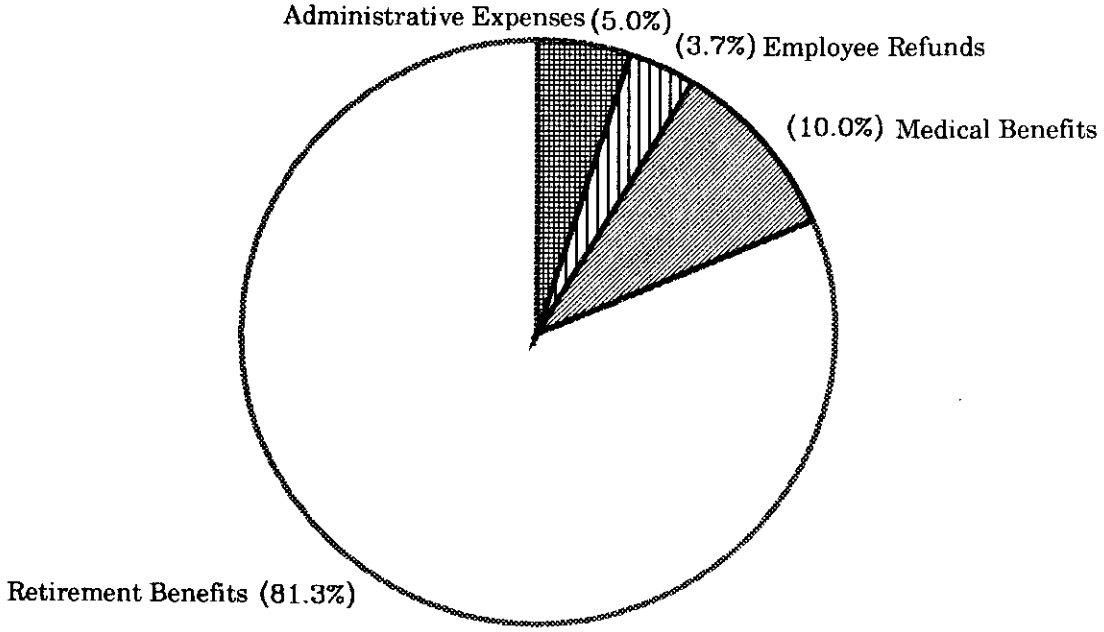
INCOME FOR THE YEAR ENDED
June 30, 1989



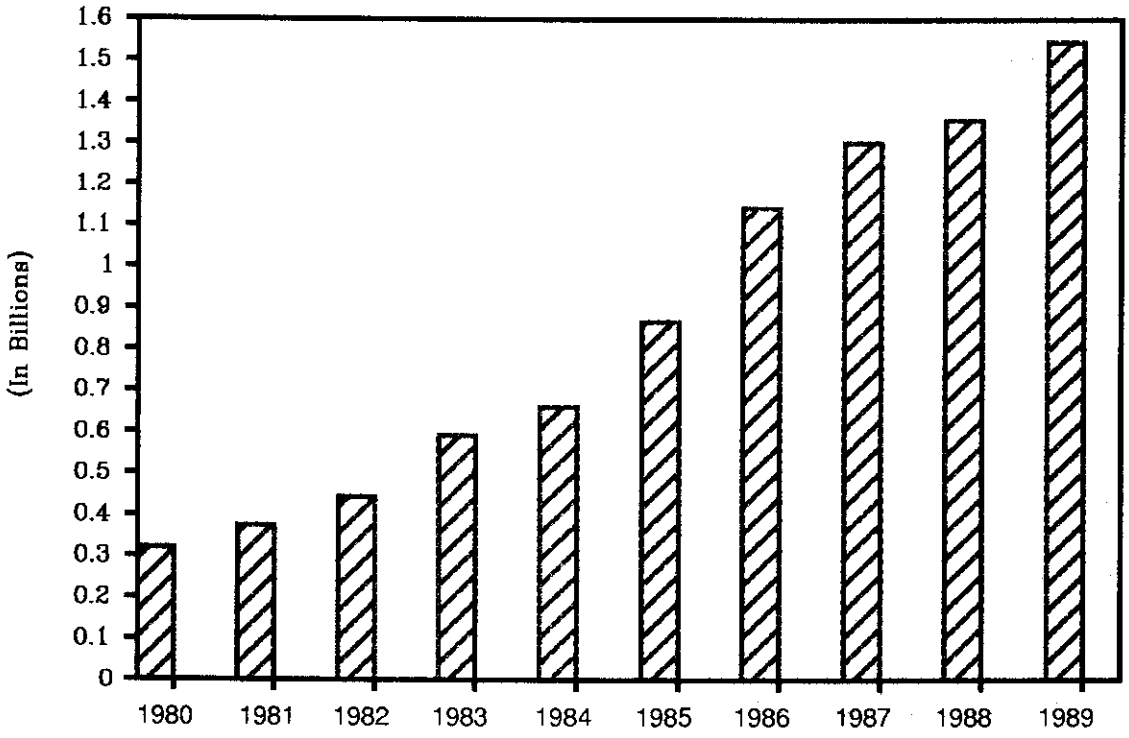
DISBURSEMENTS
10 Year Comparison



DISBURSEMENTS FOR THE YEAR ENDED
June 30, 1989



NET ASSETS
10 Year Comparison



FY 89 COMPOSITION OF INVESTMENTS